ENSR
10461 Old Placerville Road, Suite 170, Sacramento, California, 95827-2508
T 916.362.7100 F 916.362.8100 www.ensr.aecom.com
May 5, 2006

Mr. Craig Hunt
North Coast Water Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 94503-2097

RE: Quarterly Groundwater Monitoring Results/ Remedial System Status Report
First Quarter 2006
Former Unocal Bulk Plant No. 0813
122 Leslie Street, Ukiah, California
RWQCB No. 1NMC405
ENSR Project No. 06940-264-100

Dear Mr. Hunt:

ENSR Corporation (ENSR) has been authorized by Union Oil Company of California (Unocal) to perform quarterly groundwater monitoring and to operate and maintain the groundwater remediation system at the site located at 122 Leslie Street, Ukiah, California (**Figure 1**). The site is a former bulk plant with a chain link fence around its perimeter. The locations of former and current site features are illustrated on **Figure 2**. Quarterly groundwater monitoring is intended to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. This report summarizes results of the samples collected from the site during the first quarter 2006. A section has been added to this report summarizing the status of the ozone sparging system that began operation in April 2005. The field work was performed in accordance with the field methods and procedures included in **Attachment A**.

Background

Two groundwater monitoring wells (MW-7 and MW-12) were installed as part of a soil and groundwater investigation associated with the former D.Z., Inc. Bulk Plant located adjacent to the former Unocal site's southern property boundary at 134 Leslie Street. In 1999, a soil and groundwater investigation was conducted that included advancement of on-site soil borings B-1 through B-7. A supplemental evaluation of soil and groundwater followed that included the advancement of on-site soil boring B-8 and the installation of on-site groundwater monitoring wells MW-1 and MW-2. A further supplemental evaluation of soil and groundwater beneath and in the vicinity of the site was conducted in 2002 that included drilling eight soil borings and installing groundwater monitoring wells MW-3 through MW-6 and MW-8. A door-to-door sensitive receptor survey within a 500-foot radius of the site and an underground utility search within the vicinity of the site were conducted in 2002.

In a letter dated November 20, 2003, the Regional Water Quality Control Board, North Coast Region (RWQCB) approved a Corrective Action Plan prepared by Environmental Resolutions, Inc. (ERI) of Petaluma, California dated June 18, 2003. In late July 2003, ERI installed the nine C-Sparge/SVE wells associated with the remediation system at the site. On May 20, 2004, the RWQCB verbally approved a remedial design plan (RDP) dated February 3, 2004 prepared by ERI and reviewed by ENSR. The approved remedial options were ozone microsparging (C-Sparge™) and soil vapor extraction (SVE). Upon review of the completion depths of the C-Sparge/SVE wells, it was ENSR's opinion that the C-Sparge wells were set too deep to effectively remediate the groundwater beneath the site.

In a telephone conversation with the RWQCB on October 14, 2004, ENSR proposed collecting groundwater samples from selected on-site C-Sparge wells for chemical analysis to determine if the groundwater has been impacted at the screened interval depths [approximately 32 to 35 feet below ground surface (bgs)] of the C-Sparge wells. Based on the analytical results, ENSR submitted a *Revised Remedial Design Plan* dated December 7, 2004. ENSR received a verbal approval from the RWQCB in mid-December 2004 and began implementation of the revised RDP in early January 2005.

On January 12 and 13, 2005, Woodward Drilling Company of Rio Vista, California (C-57 License #710079) advanced soil borings AS-10 through AS-18 under the oversight of an ENSR geologist. The borings were advanced using a truck-mounted drill rig each to an approximate depth of 20 feet bgs using 8.25-inch diameter hollow stem augers. The soil borings were completed as air sparge wells AS-10 through AS-18. Sparge well construction details will be provided in ENSR's forthcoming Advanced Oxidation Process/ Biostimulation System and Remediation Well Installation Report.

A construction subcontractor (W.A. Craig, Inc. of Dixon, California) installed the ozone sparging system at the site in March and April 2005 under ENSR supervision. System operation began on April 18, 2005.

Groundwater Level Measurements

Depth to groundwater levels were measured in monitoring wells MW-1 through MW-9 on February 20, 2006 and are presented in **Table 1.** The ozone sparging system was shut down prior to monitoring to allow groundwater levels to stabilize prior to collecting depth to groundwater measurements. Groundwater elevations were calculated and used to construct a groundwater elevation contour map included as **Figure 3**.

On February 20, 2006, the groundwater flow direction just east of the site was generally south-southeast with an average hydraulic gradient of approximately 0.008 feet per foot (ft/ft). On-site, the groundwater flow direction was generally to the east with an average hydraulic gradient of approximately 0.014 ft/ft. These directions and gradients are consistent with those historically observed at the site. Copies of the groundwater sampling information sheets are included in **Attachment B**. A summary of groundwater elevation data determined to date is presented in **Table 1**.

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-9 on February 20, 2006. Groundwater samples were submitted to California Laboratory Services in Rancho Cordova, California (a state-certified laboratory) under chain-of-custody (COC) protocols. Samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B, total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M, total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015M, total recoverable petroleum hydrocarbons (TRPH) also referred to as Hexane Extractable Material with Silica Gel Treatment (SGT-HEM) by EPA Method 1664, and total lead by EPA Method 6010B. Additionally, the samples taken from MW-1 and MW-2 were analyzed for bromate and bromide by EPA Method 300, hexavalent chromium by EPA Method 7199, molybdenum and vanadium by EPA Method 200.7, selenium by EPA Method 200.8, and pH by EPA Method 150.1. These analytes were added to the sampling regimen to monitor for the formation of dissolved phase metals resulting from the oxidation reaction created by the ozone application.

TPHd was detected in monitoring wells MW-1, MW-2, and MW-3 with a maximum concentration of 13,000 micrograms per liter (μg/L) in MW-1. TPHg was detected in monitoring wells MW-1, MW-2, and MW-3 with a maximum concentration of 1,400 μg/L in MW-1. Benzene concentrations were not detected above the laboratory reporting limit of 0.50 μg/L in any of the monitoring wells sampled during the first quarter 2006 event.

Cumulative groundwater sampling results are summarized in **Table 1**. On March 10, 2006, ENSR confirmed that the North Coast Water Board does not require Total Oil and Grease (TOG) or TRPH to be analyzed for this site. Therefore, the TRPH results were not tabulated. Future groundwater samples will not be analyzed for TOG or TRPH. A map depicting dissolved concentrations of TPHg, TPHd, and benzene in groundwater for the first quarter 2006 is included as **Figure 4**. Isoconcentration contour maps for TPHd and TPHg in groundwater for the first quarter 2006 sampling event are included as **Figure 5** and **Figure 6**, respectively. A

copy of the certified laboratory analytical report with chain-of-custody documentation is included in **Attachment C**.

Ozone Sparging System Description

The Advanced Oxidation Process/Biostimulation (AOP/B) system is primarily an ozone sparging system with capabilities for enhanced chemical oxidation and biostimulation through the addition of supplemental oxidizing agents and/or nutrients.

The AOP/B system delivers ozonated air from inside a modified freight container (remediation enclosure), to the subsurface via sparge tubing and PVC piping. The ozonated air is delivered through micro-porous sparge points installed in the bottom of sparge wells. The depth of the sparge wells is several feet below the water table. Ozonated air is typically delivered at flows of approximately one to five standard cubic feet per minute (SCFM) and at pressures from 7 to 25 pounds per square inch (PSI), depending on subsurface conditions. Ozone concentrations in the process flow stream typically range from 1,500 parts per million by volume (ppmv) to 10,000 ppmv.

The AOP/B system is operated using a programmable-logic-controller (PLC) automated system capable of operating individual sparge points or several sparge points in any desired sequence. The system is equipped with an ozone sensor that transmits a signal to the PLC which is programmed to shut the system down in the event of an ozone leak within the remediation enclosure. The remediation enclosure is air conditioned and thermally insulated to maintain a constant temperature and thereby protect the electronic components. The thermal insulation also serves as a sound barrier to reduce noise levels outside of the remediation enclosure created by operation of the air compressor, air conditioner, and cooling fans.

Ozone Sparging System Operation

The system currently cycles between sparge points on a 37-minute sequence per cycle. Sparging sequences begin with five minutes of air flow, followed by 30 minutes of air/ozone flow, then followed by two minutes of air flow (to purge the conveyance piping and tubing). The PLC program executes 12 air-ozone-air cycles with three 15-minute rest cycles in between every third sparge cycle. The program repeats after application to each sparge point.

Modifications have been made to the PLC program to reduce the ozone loading near MW-2 in order to minimize the occurrence of undesirable byproducts such as bromate and hexavalant chromium.

Sparging is performed sequentially between sparge points to minimize the local impact on the hydraulic gradient and to prevent further mobilization of the contaminant plume. The ozone application time interval relates to the approximate time it takes for a consistent flow pattern to develop and to achieve an optimum radius of influence. The system shuts down after the entire sequence to allow the equipment to cool.

Ozone Sparging System Performance

ENSR is documenting the AOP/B system performance with monthly monitoring and analytical analysis of three-casing-volume purged samples from MW-1 and MW-2. Monthly samples have been collected at MW-1 and MW-2 since the system startup in April, 2005. These groundwater samples are being analyzed for TPHg, TPHd, and BTEX compounds. Additional analyses are also performed to ascertain the possible presence of dissolved metals. Results for samples collected at MW-1 and MW-2 as part of the remedial status evaluation are provided in **Table 2**.

Graphs depicting TPHg and TPHd concentrations over time for MW-1 and MW-2 are included as **Figures 7** and **8**, respectively.

Conclusions/Recommendations

- TPHd was detected in monitoring wells MW-1, MW-2, and MW-3 with a maximum concentration of 13,000 μg/L in MW-1. TPHd was detected in the same three monitoring wells in the previous quarter with a maximum concentration of 10,000 μg/L in MW-1.
- TPHg was detected in monitoring wells MW-1, MW-2, and MW-3 with a maximum concentration of 1,400 μg/L in MW-1. TPHg was detected in two monitoring wells (MW-1 and MW-3) in the previous quarter with a maximum concentration of 360 μg/L in MW-1.
- Benzene concentrations were not detected above the laboratory reporting limits in any monitoring wells sampled during the first quarter 2006 event. Benzene was detected in MW-1 in the previous quarter at a concentration of 0.41μg/L.

ENSR recommends continued monthly groundwater monitoring in MW-1 and MW-2 to assess performance of the AOP/B system, as well as quarterly groundwater monitoring to assess the dissolved concentrations of petroleum hydrocarbon constituents. ENSR personnel met with the North Coast Water Board in January 2006 to assess the AOP/B system performance and discuss the path toward regulatory site closure. It was determined that ENSR will continue to operate the AOP/B system until groundwater contamination levels approach Regional Water Quality Control Board water quality objectives.

Future Work

The next quarterly groundwater monitoring and sampling event is scheduled for May 2006. ENSR will also be monitoring performance of the AOP/B system with monthly sampling of MW-1 and MW-2. Quarterly AOP/B system performance monitoring updates will be provided.

Remarks/Signatures

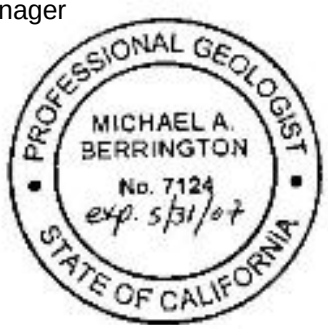
The interpretations in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended. If you have any questions regarding this project, please contact Mr. Mike Berrington at (916) 362-7100.

Sincerely,
ENSR Corporation

John M. Warren, R.C.E. No. 34168
Senior Project Engineer

For: Mike Fischer, E.I.T.
Project Engineer

Michael A. Berrington, P.G. No. 7124
Senior Project Manager



MF/dk

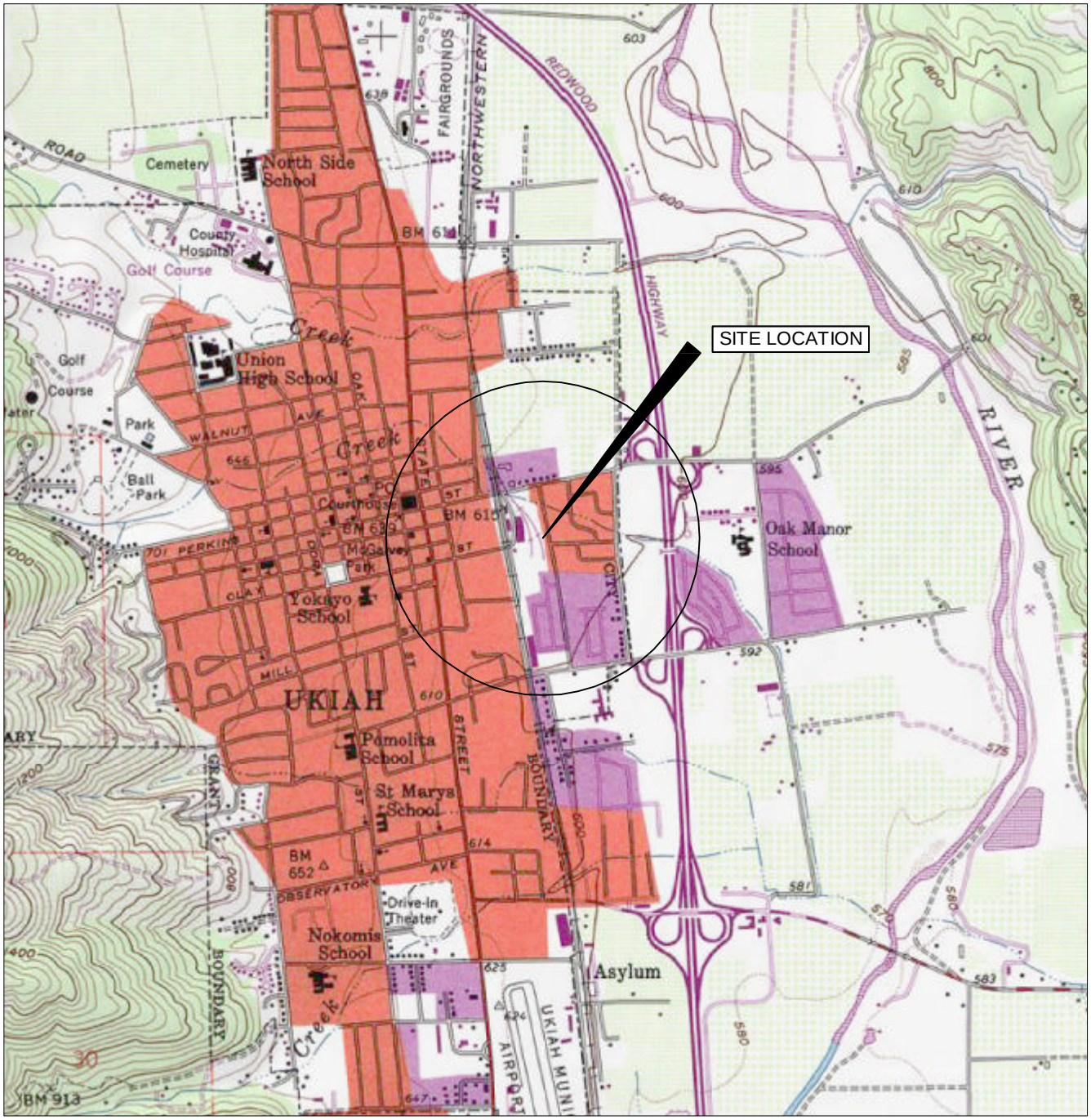
cc: Mr. John Frary, Union Oil Company of California

Attachments

Figures
- 1 Site Location Map
- 2 Site Plan
- 3 Groundwater Elevation Contour Map, February 20, 2006
- 4 Petroleum Hydrocarbon Concentration Map, February 20, 2006
- 5 TPHd Isoconcentration Map, February 20, 2006
- 6 TPHg Isoconcentration Map, February 20, 2006
- 7 TPHg and TPHd Concentration in MW-1
- 8 TPHg and TPHd Concentration in MW-2

Tables
- 1 Groundwater Monitoring Data and Analytical Results
- 2 Ozone Sparging System Monitoring

Attachments
- A Field Methods and Procedures
- B Groundwater Sampling Information Sheets
- C Laboratory Analytical Results With Chain-Of-Custody Documentation



Map created with TOPO - 2003 National Geographic

MAP LOCATION

SOURCE: BASE MAP FROM USGS UKIAH, CA
7.5 MINUTE TOPOGRAPHIC 1975

N

0 2000

Approximate Scale
in Feet

ENSR | AECOM

ENSR CORPORATION
10411 OLD PLACERVILLE ROAD SUITE 210
PHONE: (916) 362-7100
FAX: (916) 362-8100
WEB: HTTP://WWW.ENSR.AECOM.COM

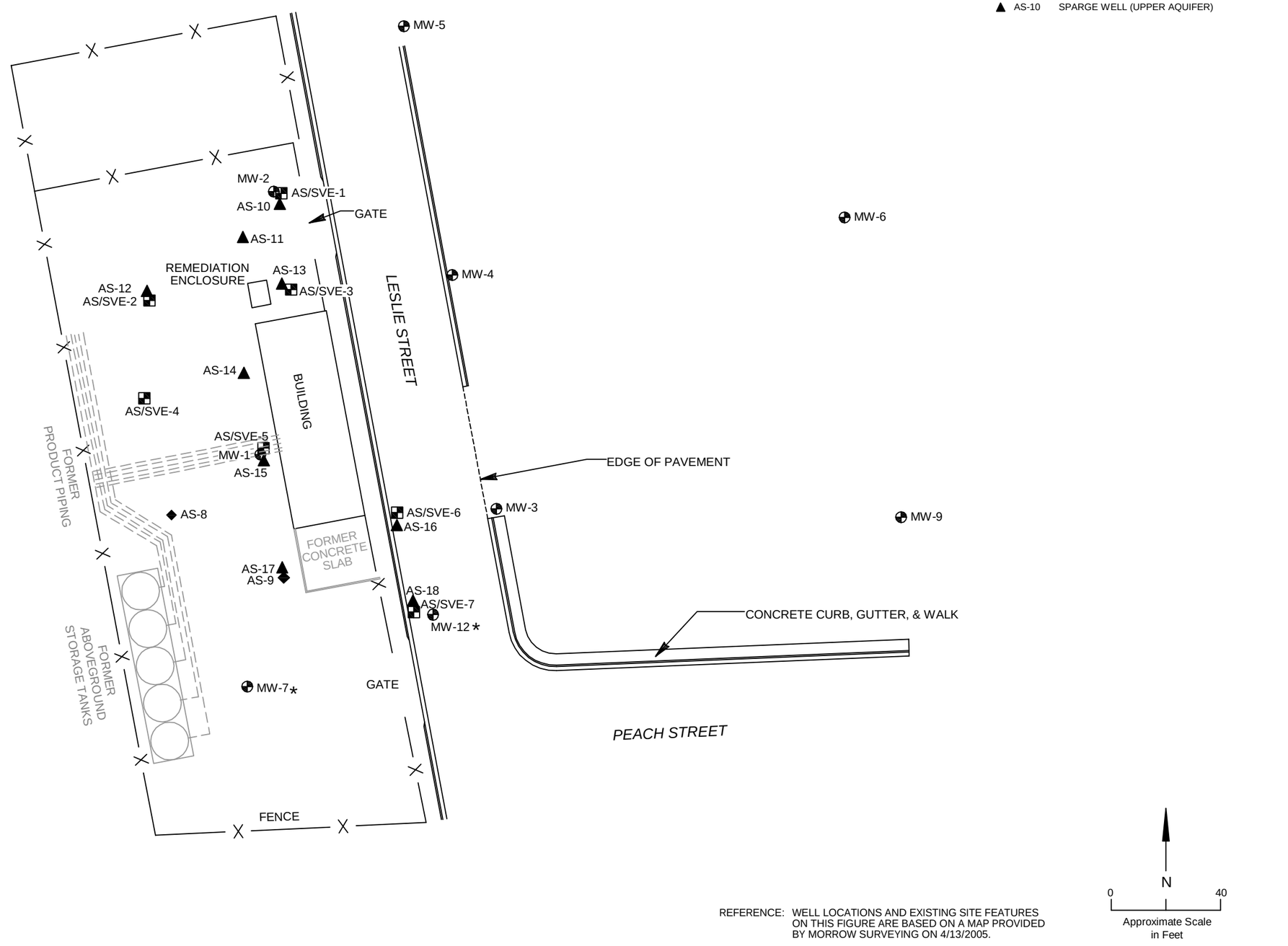
SITE LOCATION MAP

FORMER UNOCAL BULK PLANT 0813
122 LESLIE STREET
UKIAH, CALIFORNIA

FIGURE NUMBER: 4

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
MD	3/20/06 PR	06940-264	1

J:\Projects\06940\0813-264\CAD\1q06\0813 SITELOC FIG1.dwg, 4/26/2006 9:40:17 AM



REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

REVISIONS			
NO:	DESCRIPTION:	DATE:	BY:

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
X	X	X	X

ENSR | AECOM

ENSR CORPORATION
10461 OLD PLACERVILLE ROAD SUITE 170
PHONE: (916) 362-7100
FAX: (916) 362-8100
WEB: HTTP://WWW.ENSR.AECOM.COM

SITE PLAN

QUARTERLY MONITORING REPORT 1st QUARTER 2006
FORMER UNOCAL BULK PLANT 0813
122 LESLIE STREET
UKIAH, CALIFORNIA

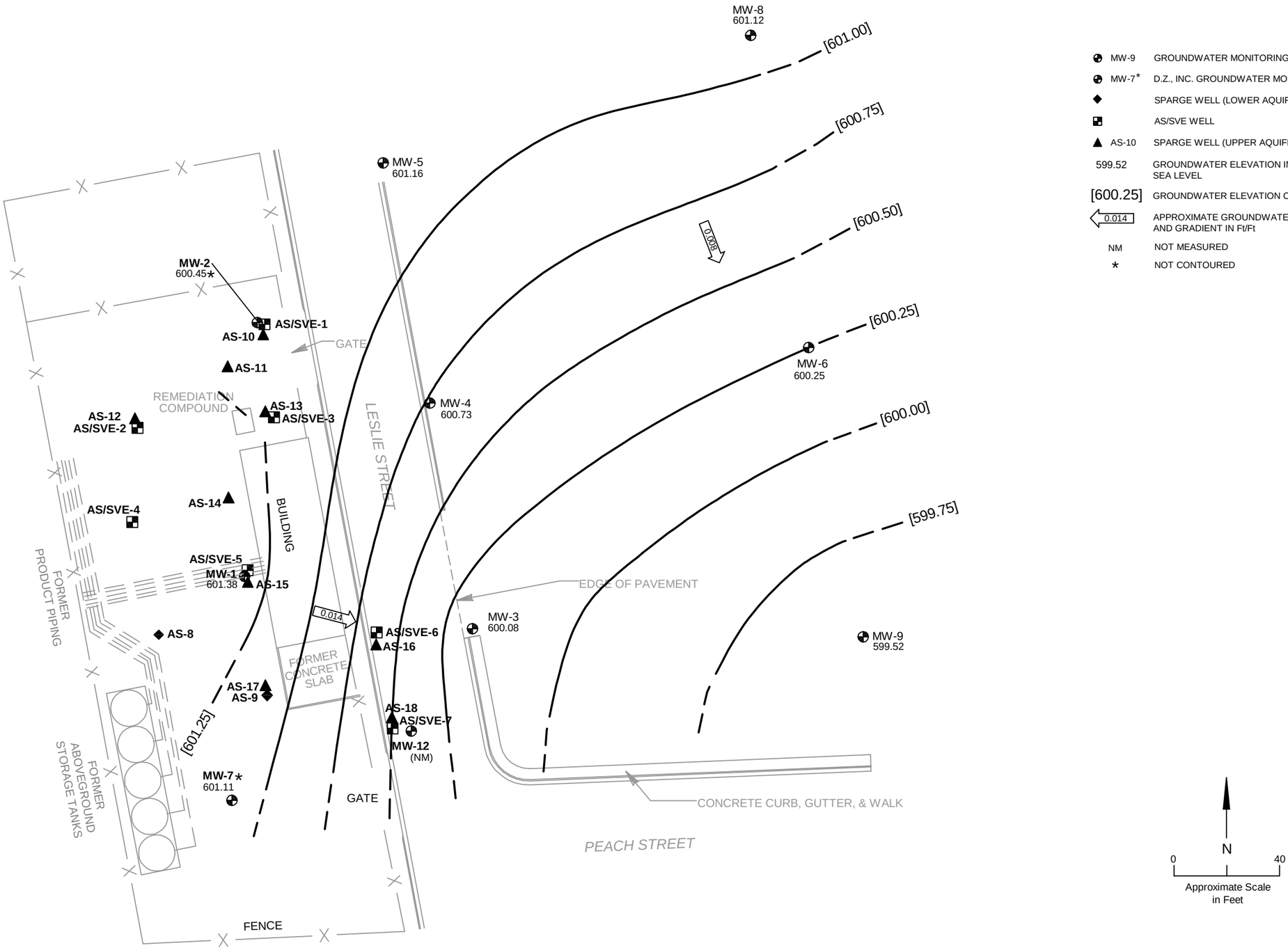
SCALE:	DATE:	PROJECT NUMBER:
1" = 40'	3/20/06 PR	06940-264

FIGURE NUMBER:

2

SHEET NUMBER:

1



REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

REVISIONS	NO.	DESCRIPTION	DATE	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
X	X	X	X

ENSR | AECOM
ENSR CORPORATION
10461 OLD PLACERVILLE ROAD SUITE 170
PHONE: (916) 362-7100
FAX: (916) 362-8100
WEB: HTTP://WWW.ENSR.AECOM.COM

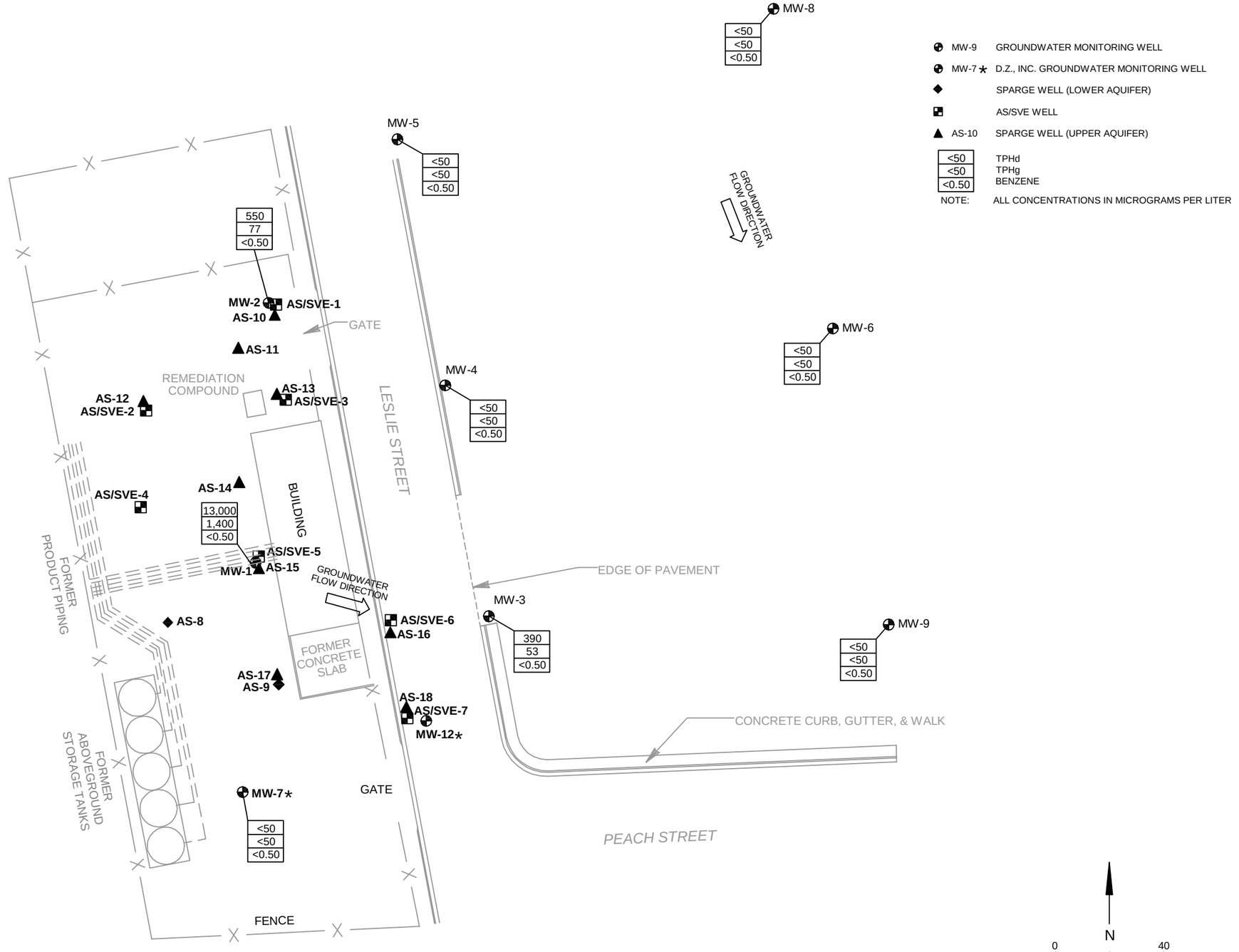
GROUNDWATER ELEVATION CONTOUR MAP FEBRUARY 20, 2006

QUARTERLY MONITORING REPORT 1st QUARTER 2006
FORMER UNOCAL BULK PLANT 0813
122 LESLIE STREET
UKIAH, CALIFORNIA

SCALE:	DATE:	PROJECT NUMBER:
1" = 40'	3/20/06 PR	06940-264

FIGURE NUMBER:
3

SHEET NUMBER:
1



REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

REVISIONS	NO.	DESCRIPTION	DATE	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
X	X	X	X

ENSR | AECOM

ENSR CORPORATION
10461 OLD PLACERVILLE ROAD SUITE 170
PHONE: (916) 362-7100
FAX: (916) 362-8100
WEB: HTTP://WWW.ENSR.AECOM.COM

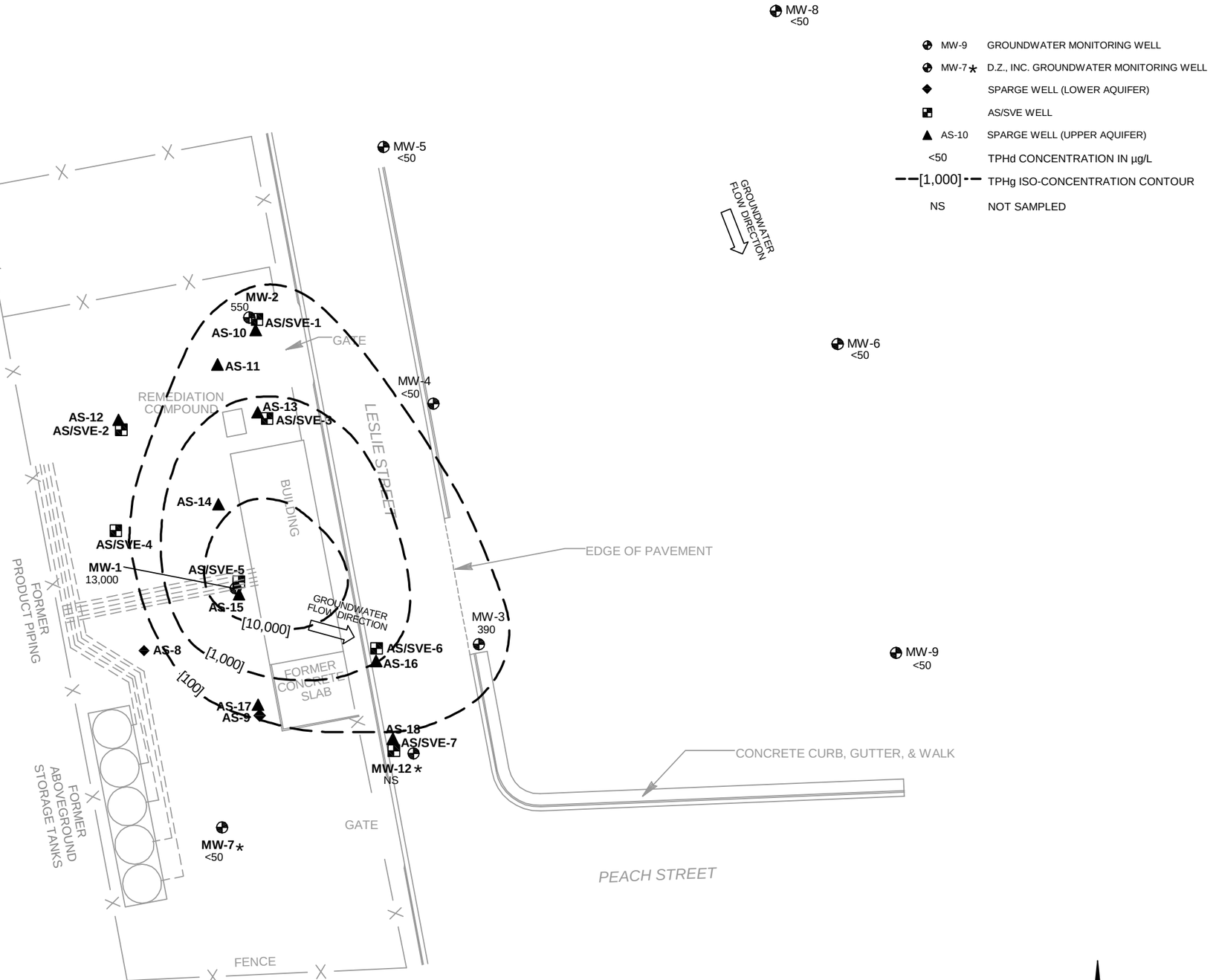
CONCENTRATION MAP
FEBRUARY 20, 2006

QUARTERLY MONITORING REPORT 1st QUARTER 2006
FORMER UNOCAL BULK PLANT 0813
122 LESLIE STREET
UKIAH, CALIFORNIA

SCALE:	DATE:	PROJECT NUMBER:
1" = 40'	3/20/06 PR	06940-264

FIGURE NUMBER:
4

SHEET NUMBER:
1



REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

REVISIONS				
NO:	DESCRIPTION:	DATE:	BY:	

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
X	X	X	X

ENSR | AECOM
ENSR CORPORATION
10461 OLD PLACERVILLE ROAD SUITE 170
PHONE: (916) 362-7100
FAX: (916) 362-8100
WEB: HTTP://WWW.ENSR.AECOM.COM

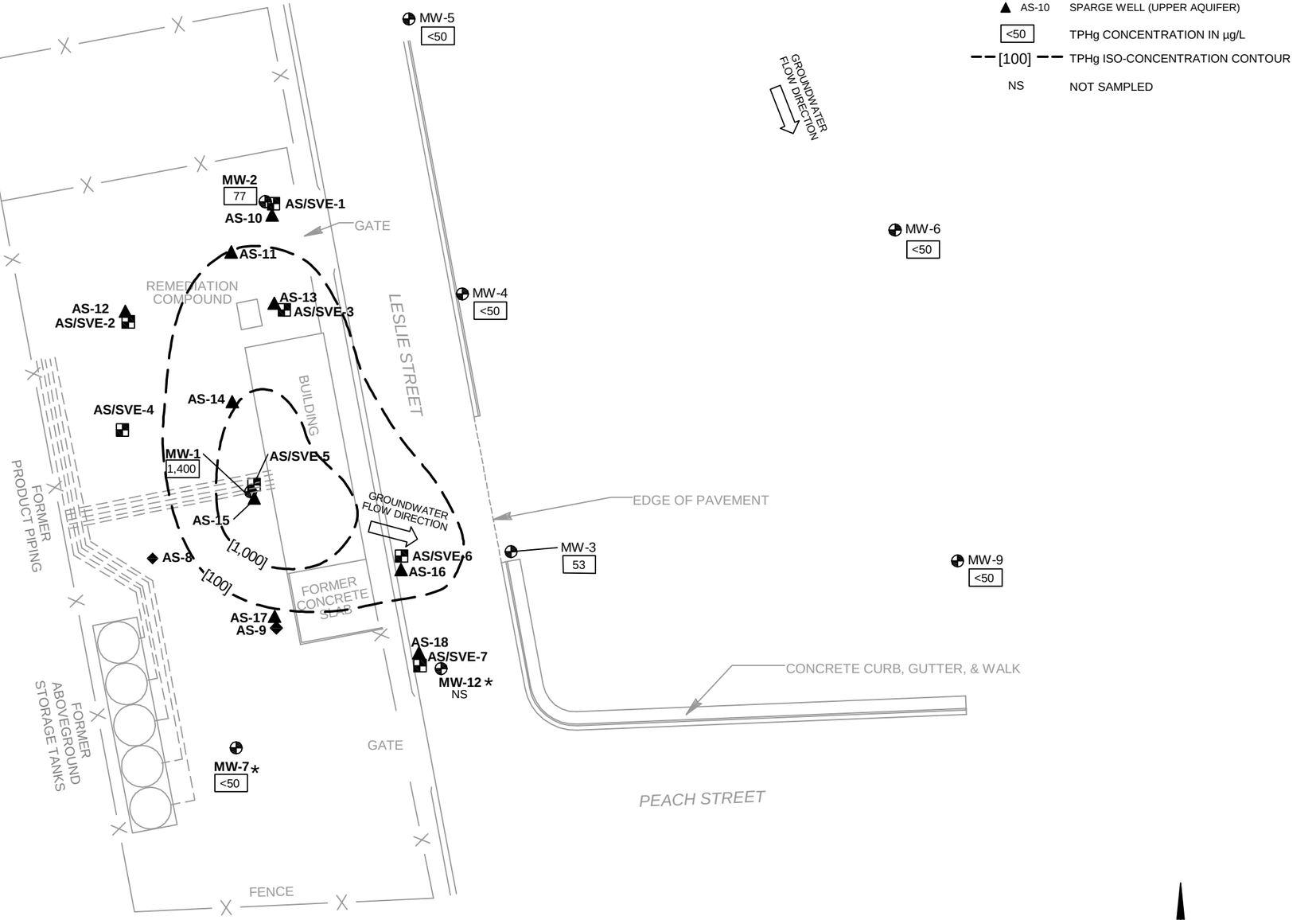
TPHd ISO-CONCENTRATION MAP
FEBRUARY 20, 2006

QUARTERLY MONITORING REPORT 1st QUARTER 2006
FORMER UNOCAL BULK PLANT 0813
122 LESLIE STREET
UKIAH, CALIFORNIA

SCALE:	DATE:	PROJECT NUMBER:
1" = 40'	3/20/06 PR	06940-264

FIGURE NUMBER:
5

SHEET NUMBER:
1



REFERENCE: WELL LOCATIONS AND EXISTING SITE FEATURES ON THIS FIGURE ARE BASED ON A MAP PROVIDED BY MORROW SURVEYING ON 4/13/2005.

REVISIONS	NO.:	DESCRIPTION:	DATE:	BY:

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
X	X	X	X

ENSR | AECOM
ENSR CORPORATION
10461 OLD PLACERVILLE ROAD SUITE 170
PHONE: (916) 362-7100
FAX: (916) 362-8100
WEB: HTTP://WWW.ENSR.AECOM.COM

TPHg ISO-CONCENTRATION MAP FEBRUARY 20, 2006

QUARTERLY MONITORING REPORT 1st QUARTER 2006
FORMER UNOCAL BULK PLANT 0813
122 LESLIE STREET
UKIAH, CALIFORNIA

SCALE:	DATE:	PROJECT NUMBER:
1" = 40'	3/21/06 PR	06940-264

FIGURE NUMBER:
6

SHEET NUMBER:
1

Figure 7

TPHd and TPHg Concentrations in MW-1

Former Unocal Bulk Plant No. 0813

122 Leslie Street, Ukiah, California

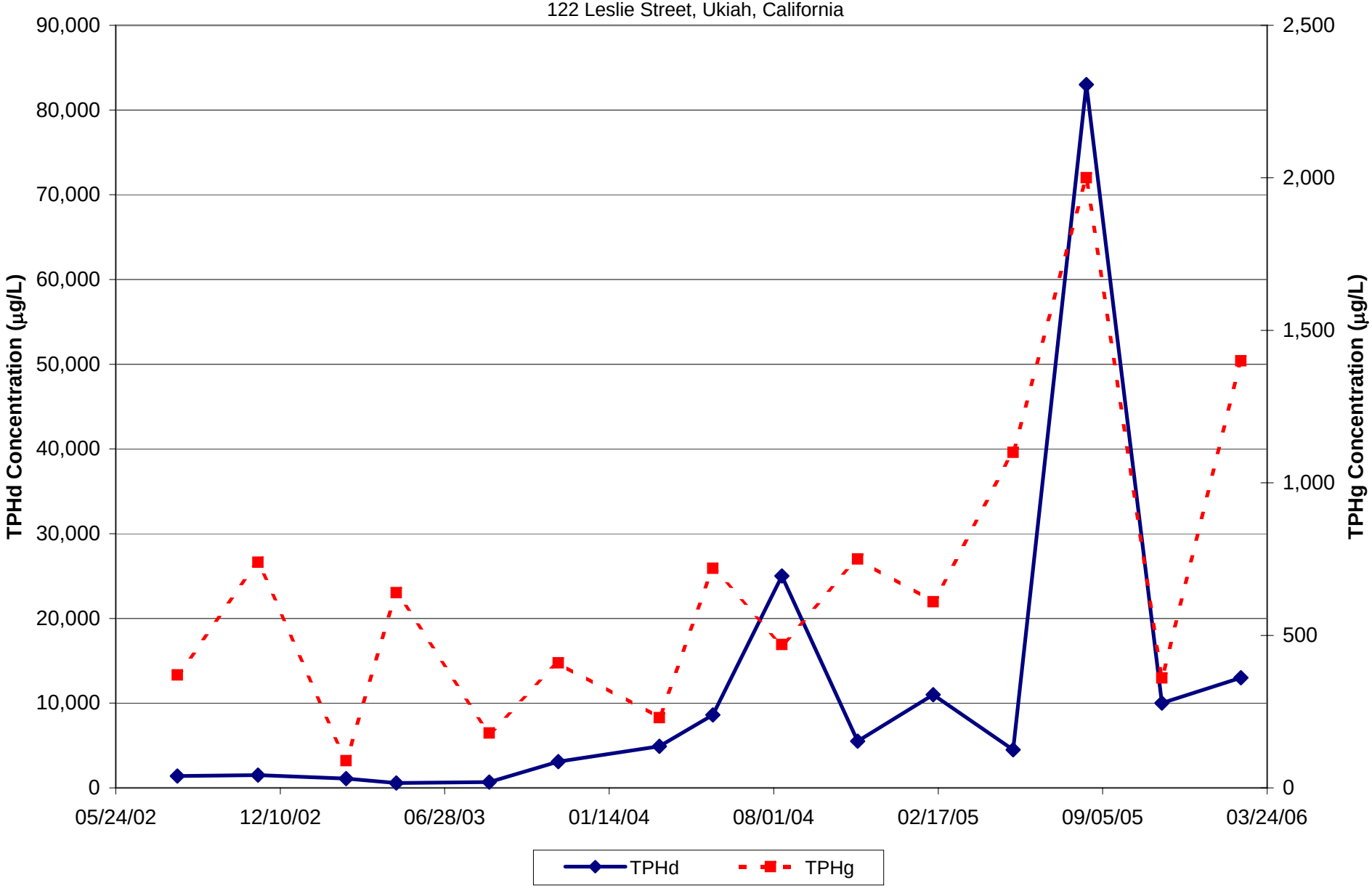


Figure 8
TPHd and TPHg Concentrations in MW-2
Former Unocal Bulk Plant No. 0813
122 Leslie Street, Ukiah, California

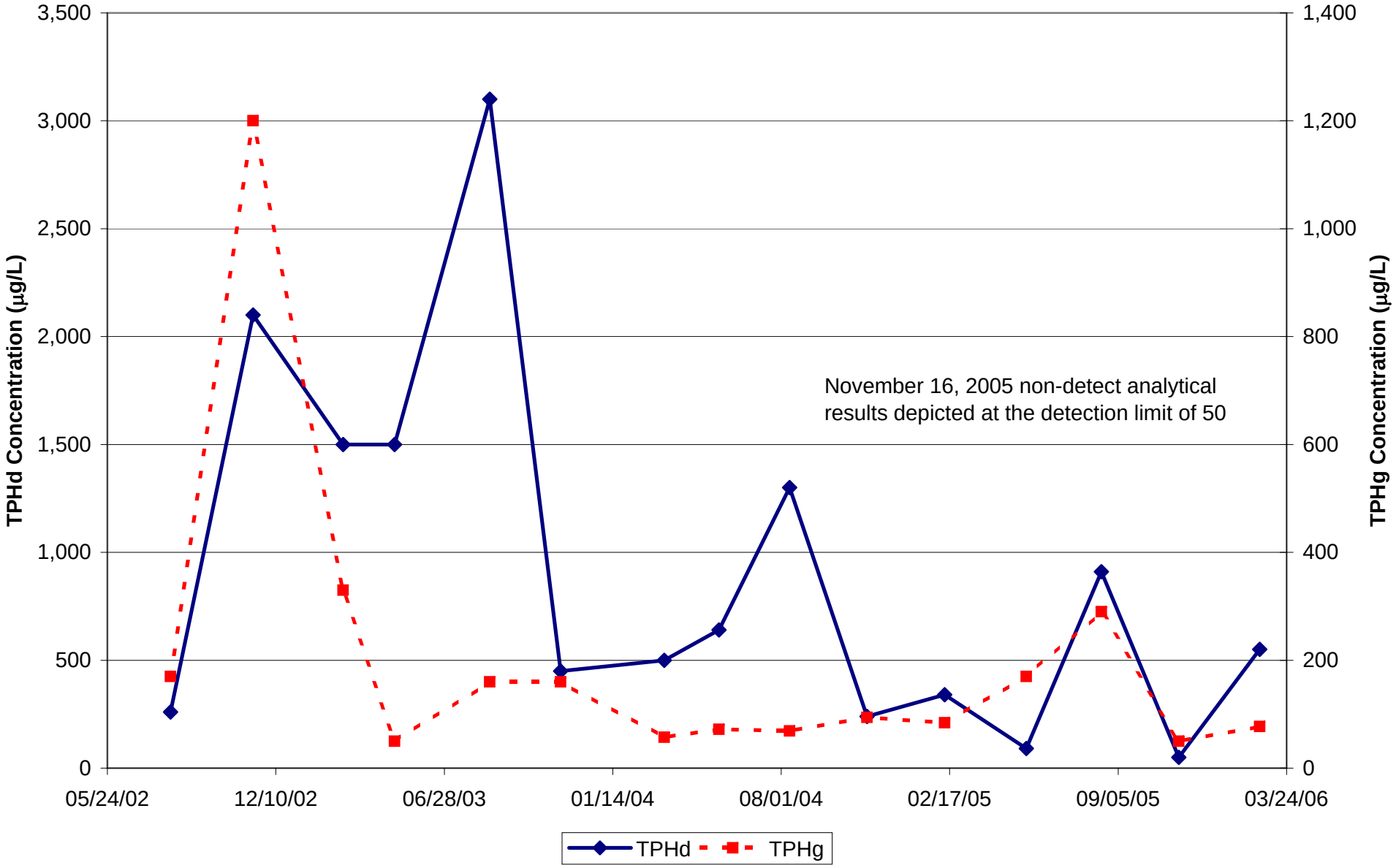


Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(µg/L)*	TPHg *(µg/L)*	B *(µg/L)*	T *(µg/L)*	E *(µg/L)*	X *(µg/L)*	Total Lead *(µg/L)*	TOG *(µg/L)*
MW-1											
607.93	08/07/02[1]	16.11	591.82	1,400	370[2]	<0.50	<0.50	1.3	<0.50	<75	<5,000
	11/13/02	17.35	590.58	1,500	740	<0.50	<0.50	6.7	<0.50	<75	<5,000
	02/28/03	7.26	600.67	1,100	89	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	04/30/03	4.29	603.64	570	640	<0.50	<0.50	1.8	<0.50	<75	<5,000
	08/21/03	13.93	594.00	690	180	1.5	<0.50	0.87	2.1	<50	<5,000
	11/13/03	20.25	587.68	3,100	410	<0.50	<0.50	0.64	<0.50	<75	<5,000
	03/15/04	6.65	601.28	4,900	230 [4]	<0.50	<0.50	<0.50	2.0	7.6	<5,000
	05/19/04	10.50	597.43	8,600	720	<0.50	<0.50	3.8	3.7	9.0	5,000
	08/11/04	16.81	591.12	25,000	470 [4]	1.4	<1.0 [6]	2.2	4.5	15	<5,000
	11/11/04	17.73	590.20	5,500	750 [4]	1.3	4.1	11	6.4	6.8	<5,000
	02/11/05	7.67	600.26	11,000	610 [4]	<0.50	0.62	2.5	3.4	<5.0	<5,000
608.62	05/19/05	6.04	602.58	4,500	1,100	<1.5	<1.5	<2.5	<2.5	5.4	NA
	08/16/05	11.80	596.82	83,000	2,000	0.39	<0.30	<0.50	<0.50	22	5,200
	11/16/05	17.30	591.32	10,000	360	0.41	<0.30	<0.50	<0.50	12	NA
	02/20/06	**7.24**	**601.38**	**13,000**	**1,400 [4]**	**<0.50**	**4.4**	**7.6**	**5.6**	**<50**	**NA**
MW-2											
607.78	08/07/02[1]	17.35	590.43	260	170[2]	<0.50	<0.50	0.91	<0.50	<75	<5,000
	11/13/02	20.23	587.55	2,100	1,200	<1.0	<1.0	19	<1.0	<75	<5,000
	02/28/03	7.55	600.23	1,500	330	<0.50	<0.50	2.4	0.57	<75	<5,000
	04/30/03	4.87	602.91	1,500	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,100
	08/21/03	14.54	593.24	3,100[2]	160	<0.50	0.60	1.1	4.0	<50	<5,000
	11/13/03	21.04	586.74	450	160	<0.50	<0.50	0.67	<0.50	<75	<5,000
	03/15/04	7.13	600.65	500	57 [4]	<0.50	<0.50	<0.50	<1.0	8.4	<5,000
	05/19/04	10.77	597.01	640	72	<0.50	<0.50	1.7	2.9	6.9	<5,000
	08/11/04	18.00	589.78	1,300	69 [4]	<0.50	<0.50	0.88	2.0	12	<5,000
	11/11/04	20.08	587.70	240	94 [4]	<0.50	0.99	2.0	2.5	<5.0	<5,000
	02/11/05	7.37	600.41	340	84 [4]	<0.50	0.87	1.5	<1.0	<5.0	<5,000

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(µg/L)*	TPHg *(µg/L)*	B *(µg/L)*	T *(µg/L)*	E *(µg/L)*	X *(µg/L)*	Total Lead *(µg/L)*	TOG *(µg/L)*
608.56	05/19/05	7.73	600.83	91	170	<0.30	<0.30	<0.50	<0.50	2.2	NA
MW-2	08/16/05	10.55	598.01	910 [7]	290	<0.30	<0.30	<0.50	<0.50	56	<5,000
(Cont.)	11/16/05	18.95	589.61	<50	<50	<0.30	<0.30	<0.50	<0.50	170	NA
	02/20/06	**8.11**	**600.45**	**550**	**77**	**<0.50**	**<0.50**	**2.0**	**1.0**	**<50**	**NA**
MW-3											
607.14	08/07/02[1]	17.29	589.85	28,000	1,300[2]	<0.50	<0.50	7.8	<0.50	360	5,300
	11/13/02	20.73	586.41	9,100	570	<5.0	<5.0	<5.0	<5.0	<75	5,400
	02/28/03	7.78	599.36	220	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	04/30/03	5.04	602.10	420	56	<0.50	<0.50	1.0	<0.50	<75	<5,000
	08/21/03	14.45	592.69	460	71	1.6	<0.50	<0.50	1.1	<50	<5,000
	11/13/03	21.45	585.69	1,300	260	2.4	<0.50	<0.50	<0.50	<75	<5,000
	03/15/04	7.38	599.76	360	87	0.71	<0.50	<0.50	<1.0	<5.0	<5,000
	05/19/04	10.90	596.24	430	110	<0.50	0.74	0.99	<1.0	<5.0	<5,000
	08/11/04	17.88	589.26	1,200	140 [4]	<0.50	0.56	1.3	2.4	<5.0	<5,000
	11/11/04	20.30	586.84	1,900	310 [4]	0.77	1.1	5.6	4.5	<5.0	<5,000
	02/11/05	7.64	599.50	230	<50	<0.50	0.59	0.82	<1.0	<5.0	<5,000
607.88	05/19/05	6.31	601.57	<50	270	<0.30	<0.30	<0.50	<0.50	<2.0	NA
	08/16/05	12.13	595.75	370 [8]	470	<0.30	<0.30	<0.50	<0.50	2.4	<5,000
	11/16/05	18.88	589.00	82	130	<0.30	<0.30	<0.50	<0.50	2.1	NA
	02/20/06	**7.80**	**600.08**	**390**	**53**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-4											
607.29	08/07/02[1]	17.16	590.13	69	<50	<0.50	<0.50	<0.50	<0.50	540	<5,000
	11/13/02	20.35	586.94	130	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	02/28/03	7.49	599.80	240	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	04/30/03	4.82	602.47	240	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,100
	08/21/03	14.54	592.75	120[2]	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000
	11/13/03	21.25	586.04	NS	NS	NS	NS	NS	NS	NS	NS

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(µg/L)*	TPHg *(µg/L)*	B *(µg/L)*	T *(µg/L)*	E *(µg/L)*	X *(µg/L)*	Total Lead *(µg/L)*	TOG *(µg/L)*
MW-4	03/15/04	7.02	600.27	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
(Cont.)	05/19/04	10.60	596.69	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	08/11/04	17.77	589.52	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	11/11/04	20.00	587.29	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	02/11/05	7.28	600.01	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
608.07	05/19/05	6.26	601.81	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	NA
	08/16/05	11.88	596.19	210 [8]	<50	<0.30	<0.30	<0.50	<0.50	3.0	<5,000
	11/16/05	18.88	589.19	120 [10]	<50	<0.30	<0.30	<0.50	<0.50	18	NA
	02/20/06	**7.34**	**600.73**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-5											
607.64	08/07/02[1]	17.33	590.31	4,100	210[2]	<0.50	<0.50	<0.50	<0.50	310	<5,000
	11/13/02	20.38	587.26	1,100	74	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	02/28/03	7.39	600.25	6,300	<50	<0.50	<0.50	<0.50	<0.50	<75	11,000
	04/30/03	4.81	602.83	3,700	<50	<0.50	<0.50	<0.50	<0.50	<75	6,600
	08/21/03	14.44	593.20	880[2]	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000
	11/13/03	21.15	586.49	30,000	61	<0.50	<0.50	<0.50	<0.50	130	7,300
	03/15/04	6.92	600.72	1,600 [5]	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	05/19/04	10.58	597.06	<50	<50	<0.50	<0.50	0.53	1.0	<5.0	17,000
	08/11/04	17.92	589.72	8,800 [5]	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	11/11/04	20.02	587.62	4,800 [5]	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	02/11/05	7.15	600.49	<50	<50	<0.50	<0.50	<0.50	<1.0	5.3	<5,000
608.40	05/19/05	6.16	602.24	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	NA
	08/16/05	11.90	596.50	170 [8]	<50	<0.30	<0.30	<0.50	<0.50	3.0	5,000
	11/16/05	18.90	589.50	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	NA
	02/20/06	**7.24**	**601.16**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-6											
606.60	08/07/02[1]	16.75	589.85	<50[3]	<50	<0.50	<0.50	<0.50	<0.50	260	<5,000

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(µg/L)*	TPHg *(µg/L)*	B *(µg/L)*	T *(µg/L)*	E *(µg/L)*	X *(µg/L)*	Total Lead *(µg/L)*	TOG *(µg/L)*
MW-6	11/13/02	20.57	586.03	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
(Cont.)	02/28/03	7.10	599.50	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	04/30/03	4.70	601.90	72	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,200
	08/21/03	13.88	592.72	<50	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000
	11/13/03	21.00	585.60	230	<50	<0.50	<0.50	<0.50	<0.50	190	<5,000
	03/15/04	6.66	599.94	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	05/19/04	10.15	596.45	<50	<50	<0.50	0.56	0.73	2.0	<5.0	<5,000
	08/11/04	17.32	589.28	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	11/11/04	19.72	586.88	<50	<50	<0.50	<0.50	<0.50	<1.0	8.3	<5,000
	02/11/05	6.94	599.66	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
607.36	05/19/05	5.93	601.43	<50	<50	<0.30	<0.30	<0.50	<0.50	13	NA
	08/16/05	11.45	595.91	<120 [9]	<50	<0.30	<0.30	<0.50	<0.50	8.8	<5,000
	11/16/05	18.64	588.72	<50	<50	<0.30	<0.30	<0.50	<0.50	7.4	NA
	02/20/06	**7.11**	**600.25**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-7											
607.29	08/07/02 [1]	15.50	591.79	56	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	11/13/02	16.58	590.71	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	02/28/03	6.93	600.36	66	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	04/30/03	3.77	603.52	64	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,200
	08/21/03	13.39	593.90	<50	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000
	11/13/03	19.60	587.69	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	03/15/04	6.36	600.93	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	05/19/04	10.10	597.19	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	08/11/04	16.18	591.11	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	11/11/04	17.05	590.24	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	02/11/05	6.72	600.57	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
608.07	05/19/05	5.54	602.53	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	NA
	08/16/05	11.30	596.77	420 [8]	<50	<0.30	<0.30	<0.50	<0.50	<2.0	<5,000

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(µg/L)*	TPHg *(µg/L)*	B *(µg/L)*	T *(µg/L)*	E *(µg/L)*	X *(µg/L)*	Total Lead *(µg/L)*	TOG *(µg/L)*
MW-7	11/16/05	16.70	591.37	<50	<50	<0.30	<0.30	<0.50	<0.50	<2.0	NA
(Cont.)	**02/20/06**	**6.96**	**601.11**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-8											
606.53	08/07/02[1]	16.30	590.23	<50[3]	<50	<0.50	<0.50	<0.50	<0.50	190	<5,000
	11/13/02	20.15	586.38	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	02/28/03	6.18	600.35	<50	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	04/30/03	3.98	602.55	59	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	08/21/03	13.33	593.20	<50	<50	<0.50	0.56	<0.50	<0.50	<50	<5,000
	11/13/03	20.60	585.93	140	<50	<0.50	<0.50	<0.50	<0.50	<75	<5,000
	03/15/04	5.72	600.81	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<5,000
	05/19/04	9.40	597.13	<50	<50	<0.50	<0.50	0.66	1.9	<5.0	<5,000
	08/11/04	16.85	589.68	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	11/11/04	19.07	587.46	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	02/11/05	6.03	600.50	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
607.30	05/19/05	5.04	602.26	<50	<50	<0.30	<0.30	<0.50	<0.50	4.9	NA
	08/16/05	10.73	596.57	140 [8]	<50	<0.30	<0.30	<0.50	<0.50	7.6	<5,000
	11/16/05	17.90	589.40	<50	<50	<0.30	<0.30	<0.50	<0.50	11	NA
	02/20/06	**6.18**	**601.12**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-9	08/21/03[1]	14.25	592.42	<50	<50	<0.50	<0.50	<0.50	<0.50	<50	<5,000
606.67	11/13/03	21.45	585.22	55	<50	<0.50	<0.50	<0.50	<0.50	79	<5,000
	03/15/04	7.50	599.17	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<5,000
	05/19/04	10.78	595.89	<50	<50	0.94	0.77	0.95	3.2	<5.0	<5,000
	08/11/04	17.67	589.00	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	11/11/04	20.23	586.44	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5,000
	02/11/05	7.77	598.90	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<5,000
607.44	05/19/05	6.65	600.79	<50	<50	<0.30	<0.30	<0.50	<0.50	7.4	--
	08/16/05	12.00	595.44	480 [8]	<50	<0.30	<0.30	<0.50	<0.50	9.8	<5,000

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC* *(ft.)*	DATE	DTW *(ft.)*	GWE *(msl)*	TPHd *(µg/L)*	TPHg *(µg/L)*	B *(µg/L)*	T *(µg/L)*	E *(µg/L)*	X *(µg/L)*	Total Lead *(µg/L)*	TOG *(µg/L)*
MW-9	11/16/05	18.82	588.62	<50	<50	<0.30	<0.30	<0.50	<0.50	11	NA
(Cont.)	**02/20/06**	**7.92**	**599.52**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**NA**
MW-12											
607.33	NOT MONITORED/NOT SAMPLED			--	--	--	--	--	--	--	--
Trip Blank											
QA	08/07/02	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	11/13/02	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	02/28/03	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	04/30/03	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	08/21/03	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	11/13/03	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	05/19/04	--	--	NA	<50	<0.50	<0.50	<0.50	<0.50	NA	NA
	08/11/04	--	--	NA	<50	<0.50	<0.50	<0.50	<1.0	NA	NA
	11/11/04	--	--	NA	<50	<0.50	<0.50	<0.50	<1.0	NA	NA
	02/11/05	--	--	NA	<50	<0.50	<0.50	<0.50	<1.0	NA	NA
	05/19/05	--	--	NA	<50	<0.30	<0.30	<0.50	<0.50	NA	NA
	08/16/05	--	--	NA	<50	<0.30	<0.30	<0.50	<0.50	NA	NA
	11/16/05	--	--	NA	<50	<0.30	<0.30	<0.50	<0.50	NA	NA
	02/20/06	--	--	**NA**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**NA**

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

EXPLANATIONS:

TOC = Top of Casing
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
(msl) = Mean Sea Level
TPHd = Total Petroleum Hydrocarbons as Diesel
NS Not Sampled; unable to access well due to parked car

TPHg = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
TOG = Total Oil and Grease
NA = Not Analyzed

(ppb) = Parts per billion
-- = Not Measured/Not Calculated
QA = Quality Assurance/Trip Blank
mg/L = Milligrams per liter
µg/L = Microgram per liter

* TOC elevations were re-surveyed on April 13, 2005 by Morrow Surveying. Historically, TOC elevation for MW-9 was surveyed September 4, 2003, by Morrow Surveying, Inc. referencing the previous benchmark. TOC elevations are referenced to msl, and were surveyed June 24, 2002, by Morrow Surveying, Inc. The benchmark used for the survey was a City of Ukiah benchmark.

1 Well development performed.
2 Laboratory report indicates a hydrocarbon pattern is present in the requested quantitation range but does not resemble the pattern of the requested fuel.
3 Laboratory report indicates no sample remained for re-extraction.
4 Although sample contains compounds in the retention time range associated gasoline, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on gasoline.
5 Although sample contains compounds in the retention time range associated diesel, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on diesel.
6 The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
7 Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel
8 The sample chromatographic pattern does not resemble the diesel standard used for calibration
9 The method blank contains analyte at a concentration above the MRL; sample reporting limits were raised as necessary.
10 The sample chromatogram contains resolved peaks within the diesel range that do not resemble diesel.

Table 2
Ozone Sparging System Monitoring
Data and Analytical Results for MW-1 and MW-2
Former Unocal Bulk Plant No. 0813
122 Leslie Street
Ukiah, California

WELL ID/ TOC(ft.)	DATE	DTW (ft.)	GWE (msl)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Cr+6 (µg/L)	pH pH Units	Molybdenum (µg/L)	Selenium (µg/L)	Vanadium (µg/L)	Bromate (µg/L)	Bromide (µg/L)
MW-1																
	4/14/05*	NT	NT	4,700	1,100	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	120
608.62	4/20/05*	NT	NT	260	160	ND	ND	ND	ND	ND	6.8	ND	ND	ND	ND	57
	5/09/05*	NT	NT	97	540	ND	ND	ND	ND	ND	7.1	ND	ND	ND	ND	39
	5/19/05	6.04	602.58	4,500	1,100	ND	ND	ND	ND	ND	6.6	ND	ND	ND	NA	NA
	6/17/05*	NT	NT	180	220	ND	ND	ND	ND	ND	7.0	ND	ND	ND	ND	31
	8/16/05	11.80	596.82	83,000	2,000	0.39	<0.30	<0.50	<0.50	<10	6.7	<20	<5	<10	<5	6.5
	9/19/05	15.20	593.42	3,600	1,200	0.35	<0.30	<0.5	<0.50	<1.0	6.3	<20	<5.0	<10	<5	83
	10/18/05	17.70	590.92	8,000	2,100	0.45	<0.30	<0.5	<0.50	<1.0	7.1	<20	<5.0	<10	<5	22
	11/16/05	17.30	591.32	10,000	360	0.41	<0.30	<0.50	<0.50	<1.0	6.8	<20	<5.0	<10	<5	72
	12/15/05	12.90	595.72	11,000	1,000	0.50	<0.30	<0.50	<0.50	<1.0	6.2	<20	<5.0	<10	<5	55
	1/26/06	5.80	602.82	120,000	860	<0.50	<0.50	4.9	4.3	<1.0	6.60	<20	<5.0	<20	<20	<100
	2/20/06	**7.24**	**601.38**	**13,000**	**1400** [1]	**<0.50**	**4.4**	**7.6**	**5.6**	**<1.0**	**6.41**	**<20**	**<5.0**	**<20**	**<20**	**<100**
MW-2																
	4/14/05*	NT	NT	79	ND	ND	ND	ND	ND	ND	6.4	ND	ND	ND	ND	250
608.56	4/20/05*	NT	NT	2,500	290	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	69
	5/09/05*	NT	NT	310	190	ND	ND	ND	ND	ND	6.8	ND	ND	2.4	ND	85
	5/19/05	7.73	600.83	91	170	ND	ND	ND	ND	ND	6.7	ND	ND	1.6	NA	NA
	6/17/05*	NT	NT	260	ND	ND	ND	ND	ND	0.1	6.8	ND	ND	ND	ND	49
	8/16/05	10.55	598.01	910	290	<0.30	<0.30	<0.50	<0.50	11	6.9	<20	<5	27	<5	81
	9/19/05	16.00	592.56	120	150	<0.3	<0.30	<0.50	<0.50	<1.0	6.5	<20	<5.0	<10	<5	79
	10/18/05	19.54	589.02	<50	<50	<0.3	<0.30	<0.50	<0.50	<1.0	7.3	<20	<5.0	<10	16	23
	11/16/05	18.95	589.61	<50	<50	<0.30	<0.30	<0.50	<0.50	<1.0	7.2	<20	<5.0	<10	<5	69
	12/15/05	12.80	595.76	<50	140	0.37	0.33	1.1	2.3	<1.0	6.7	<20	<5.0	<10	<5	61
	1/26/06	6.40	602.16	720	91	<0.50	<0.50	2.1	1.0	<1.0	6.74	<20	<5.0	<20	<20	150
	2/20/06	**8.11**	**600.45**	**550**	**77**	**<0.50**	**<0.50**	**2.0**	**1.0**	**<1.0**	**6.64**	**<20**	**<5.0**	**<20**	**<20**	**<100**

EXPLANATIONS:

TPHd = Total Petroleum Hydrocarbons as Diesel
TPHg = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes (total)
Cr+6 = Hexavalent chromium
ND = Non-detect
NA = Not analyzed
µg/L = micrograms per liter
TOC = Top of Casing
ft = feet above mean sea level
DTW = Depth to Water
GWE = Groundwater Elevation
-- = Not Measured/Not Calculated

* = Samples collected as part of the monthly ozone system monitoring & sampling were collected as grab samples. All samples collected as part of the quarterly groundwater monitoring program and monthly samples collected after 8/16/05 were collected following a three-casing-volume purge.

[1] = Although sample contains compounds in the retention time range associated gasoline, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on gasoline.

ATTACHMENT A

FIELD METHODS AND PROCEDURES

FIELD METHODS AND PROCEDURES
Unocal Site No. 813, 122 Leslie Street, Ukiah, CA (Site)
ENSR Project No. 06940-264

The following section describes field procedures that are to be used by ENSR personnel in the performance and quality management of the field work and data evaluation tasks involved with this project.

1. HEALTH AND SAFETY PLAN

The performance of fieldwork and other project services by ENSR and ENSR's subcontractors will be conducted according to guidelines established in the most current, Site-specific Health And Safety Plan (HASP). The HASP describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the HASP is maintained at the Site. Prior to performing work at the Site, personnel will have read the HASP, and sign that they have read the HASP and will perform work at the Site in accordance with the HASP.

2. DECONTAMINATION

Decontamination of equipment brought to and used at the Site is performed in accordance with ENSR SOP No. 7600. The soap solution and rinse water used for decontamination are collected and properly disposed of as described in Section 7.

3. GROUNDWATER DEPTH ASSESSMENT

Initially, all wells for groundwater depth assessment are opened and allowed to equilibrate to atmospheric pressure. Measuring the thickness of liquid-phase hydrocarbons (LPH), if present, and the depth to groundwater are performed in accordance with the applicable sections of ENSR SOP No. 7130. The water level measurement probe is subjectively analyzed for LPH sheen after each measurement.

4. SUBJECTIVE ANALYSIS OF GROUNDWATER

Prior to purging for groundwater monitoring, a groundwater sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

5. GROUNDWATER SAMPLE COLLECTION

5.1 Purged Groundwater Sample

The purging and collection of a groundwater sample are performed in accordance with ENSR SOP No. 7130. Well purging completion standards include minimum purge volumes, and the stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature as described in ENSR SOP Nos. 7124, 7121, and 7123, respectively. Groundwater parameter readings are obtained at regular intervals during the purging process (no less than once per case volume).

5.2 Dissolved Oxygen Measurement

Dissolved oxygen (D.O.) readings are collected in accordance with ENSR SOP No. 7122 using HORIBA meters (e.g. HORIBA Model U-22 or equivalent D.O. meter). These meters are equipped with a stirring device that enables the collection of in-situ readings.

5.3 Oxidation Reduction Potential (Redox Potential) Measurement

Redox potential readings are obtained with HORIBA meters (e.g. HORIBA Models U-22 or equivalent ORP meter). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the manufacturer's instruction manual.

5.4 Grab Groundwater Sample Collection

A grab groundwater sample is collected by lowering a disposable bailer to sufficient depth that the length of the bailer is below the water table.

6. PACKAGING AND SHIPMENT OF SAMPLES

Soil, groundwater, and/or gas samples from field work are packaged and shipped in accordance with ENSR SOP No. 7510.

7. INVESTIGATION-DERIVED WASTE MANAGEMENT

The purge water, decontamination residuals, and aqueous-based, liquid wastes from field work are placed in 55-gallon drums and temporarily stored on-site pending evaluation of disposal options. Solid wastes, such as disposable bailers and paper wipes, generated during field work are packaged in an appropriate container and separately from liquid wastes. Final disposal is performed consistent with accepted regulatory requirements and consistent with requirements specified by Unocal.

8. QUALITY CONTROL

Quality control samples are collected and submitted for analysis. The quality control samples may include field blanks, rinsate blanks, duplicate sample(s), and matrix spike/matrix spike duplicate samples as described in Section 5.0 of ENSR SOP No. 7130.

9. DOCUMENTATION

Documentation of field work is performed consistent with Section 6.0 of ENSR SOP No. 7130 and ENSR SOP No. 7515.

ATTACHMENT B

GROUNDWATER SAMPLING INFORMATION DATA

ENSR | AECOM

GROUNDWATER/LIQUID LEVEL DATA
(measurements in feet below TOC)

Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Date: 2/20/06
Recorded by: SDR

Sampling Order/ Well No.	Time Opened	CGI	PID	O2	Time Measured	Depth to Gr. Water	Measured Total Depth	Depth to Product	Product Thickness	Comments (TOC/TOB) (product skimmer in well)
MW-9	0925		0.0		0927	7.92	24.61			TAKE D.O. READING
MW-6	0930		0.0		0932	7.11	23.41			
MW-8	0934		0.0		0936	6.18	24.79			
MW-7	0941		0.4		0943	6.96	24.58			
MW-4	0947		0.0		0950	7.31	25.91			
MW-3	0953		0.0		0956	7.80	25.91			
MW-2	0958		6.4		1001	~~7.28~~ 8.11	24.29			
MW-5	1004		0.6		1007	7.24	23.39			
MW-1	1012		0.3		1015	7.24	24.11			
MW-12	NA	NA	NA	NA	NA	NA	NA			DO NOT SAMPLE

Notes:

Water measurement and sampling order listed above.

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-9**

Well [X] Piezometer [ ]

Field Tech(s): JDR

Weather Conditions: CLEAR + SUNNY

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Casing Material: pvc
Well Diameter: 2.00 in.
Total Depth: 24.61 ft from TOC
Depth to Water: 7.92 ft from TOC
Water Column: 16.69 ft.
Water Column Volume: 2.71 gal (WC X VF)

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.57 11.04'

Depth to water after recovery: 7.96 Time: 1045

Time		Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1025	0	0.50	5.42	291	16.1	24.1	5.24	377			
1031	1	3.50	3.21	280	16.3	23.1	5.46	354			
1036	2	6.50	3.02	268	16.1	26.6	5.43	270			
1041	3	9.50	3.14	267	16.0	24.5	5.42	171			
	4										

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-9	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1050
MW-9	1	1-L Amber	None	TRPH (1664)	
MW-9	1	250-mL Amber	None	TPHd (8015M)	
MW-9	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: * YSI 550A DO PUMP Have = 5.8 mg/L
*DIFFICULT TO FIND - COVERED W/ 1" OF MUD/DIRT

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-6**

Well [X] Piezometer [ ]

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Field Tech(s): JDR

Weather Conditions: COLD + SUNNY

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 23.41 ft from TOC
Depth to Water: 7.11 ft from TOC
Water Column: 16.30 ft.
Water Column Volume: 2.60 gal (WC X VF)

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.04 10.37

Depth to water after recovery: 7.25 Time: 1120

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1100	0 0.5	5.92	231	15.9	18.7	5.86	141	LT MUSTARD		
1105	1 3.5	4.13	247	15.0	17.8	5.64	53.6	CLR		
1110	2 6.5	3.28	250	14.8	17.6	5.51	14.8	CLR-LEMON AID		
1115	3 9.5	3.13	251	14.7	17.7	5.48	6.5	CLR-LEMON AID		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-6	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1125
MW-6	1	1-L Amber	None	TRPH (1664)	
MW-6	1	250-mL Amber	None	TPHd (8015M)	
MW-6	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: * DUP HOSE DO = 6.8 mg/L (YSI 550A)

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET

Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-8**

Well [X] Piezometer [ ]

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Field Tech(s): JBR

Weather Conditions: COLD + CLEAR

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 24.79 ft from TOC
Depth to Water: 6.18 ft from TOC
Water Column: 18.61 ft.
Water Column Volume: 2.98 gal (WC X VF)

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 24.79 - 14.88 = 9.90'

Depth to water after recovery: 6.21 Time: 1210

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1140	0 0.5	6.12	~~6125~~	16.0	18.1	5.77	386	LT BRN		
1144	1 3.5	5.03	158	15.1	17.8	5.53	109	CLR		
1148	2 6.5	4.27	177	15.3	17.8	5.44	72	CLR		
1154	3 9.5	4.43	182	15.2	17.7	5.42	68	CLR		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-8	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1215
MW-8	1	1-L Amber	None	TRPH (1664)	
MW-8	1	250-mL Amber	None	TPHd (8015M)	
MW-8	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: * NARROW ALLEY W/ TRUCK + THICK BRIAR + BLACK BERRY BUSHES HVY W/ THORNS!!
* DUP HERE = 6.8 mg/l (YSI 550A)

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-7**

Well [X] Piezometer [ ]

Field Tech(s): JDR

Weather Conditions: COLD + CLR

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Casing Material: PVC
Well Diameter: 4.00 in.
Total Depth: 24.58 ft from TOC
Depth to Water: 6.96 ft from TOC
Water Column: 17.62 ft.
Water Column Volume: 11.63 gal (WC X VF)

Volume Factor (VF)				
	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 24.58 − 14.10 = 10.48'

Depth to water after recovery: 6.82' Time: 1308

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1230	0 0.50	4.23	222	16.8	18.1	5.26	75.5	CLD		
1240	1 12.00	3.51	226	17.2	18.0	5.22	29.0	CLR		
1250	2 24.00	3.36	229	16.8	17.8	5.27	47.8	CLR		
1300	3 36.00	3.54	230	16.7	17.8	5.25	64.3	CLR		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-7	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1320
MW-7	1	1-L Amber	None	TRPH (1664)	
MW-7	1	250-mL Amber	None	TPHd (8015M)	
MW-7	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: * DOWN HOLE DO = 5.97 mg/L (YSI 556A)

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-4**

Well ☑ Piezometer ☐

Field Tech(s): JDE

Weather Conditions: Cloud + CLR

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC Pump

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 25.91 ft from TOC
Depth to Water: 7.34 ft from TOC
Water Column: 10.57 ft.
Water Column Volume: 2.47 gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column (14.86) X .8) = 11.05'

Depth to water after recovery: 7.34 Time: 1352

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1335	0 0.5	3.42	201	18.0	21.7	5.18	954	Grey		
1339	1 3.5	1.66	180	18.4	22.3	5.11	355	CLR		
1343	2 6.5	0.43	186	18.1	24.0	5.12	279	CLR		
1347	3 9.5	0.70	188	18.1	23.8	5.14	228	CLR		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC Pump
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-4	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1358
MW-4	1	1-L Amber	None	TRPH (1664)	
MW-4	1	250-mL Amber	None	TPHd (8015M)	
MW-4	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: DWN Hole DO = 4.9 mg/L (451 SDA)

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET

Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-3**

Well [x] Piezometer [ ]

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Field Tech(s): JDR

Weather Conditions: COLD + CLR

Volume Factor (VF)				
Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 24.29 ft from TOC
Depth to Water: 7.80 ft from TOC
Water Column: 16.49 ft.
Water Column Volume: 2.64 gal (WC X VF)

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.19 11.10'

Depth to water after recovery: 7.92 Time: 1428

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1410	0 0.5	4.77	70	17.9	46.2	5.23	233	GREY		
1414	1 3.5	3.24	49	18.4	46.8	5.28	248	CLR		
1418	2 6.5	3.06	34	18.2	47.1	5.32	217	CLR		
1423	3 9.5	3.01	32	18.2	46.5	5.29	142	CLR		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-3	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1435
MW-3	1	1-L Amber	Ice	TRPH (1664)	
MW-3	1	250-mL Amber	Ice	TPHd (8015M)	
MW-3	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: PUMP HOSE DO = 4.9 mg/L (YSI 550A)

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET

Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-2**

Well [X] Piezometer [ ]

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Field Tech(s): JDe

Weather Conditions: COLD + CLR

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 25.91 ft from TOC
Depth to Water: 8.11 ft from TOC
Water Column: 17.80 ft.
Water Column Volume: 2.85 gal (WC X VF)

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.24 11.67

Depth to water after recovery: 11.58 Time: 15.25

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1450	0 0.5	3.52	56	16.7	25.0	5.56	253	LT BRWN		
1454	1 3.5	2.79	95	17.3	24.9	5.46	329	TAN/LT BRN		
1459	2 6.5	3.64	119	17.4	24.7	5.45	705	TAN/LT BRN		
1504	3 9.5	3.11	124	17.4	24.5	5.44	284	TAN		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-2	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1530
MW-2	1	1-L Amber	ICE	TRPH (1664)	
MW-2	1	250-mL Amber	ICE	TPHd (8015M)	
MW-2	1	500-mL Poly	HNO3	Total Lead (6010)	
MW-2	1	500-mL Poly	ICE	Bromate / Bromide (300.0) Chromium VI (7199) / pH (150.1)***	
MW-2	1	500-mL Poly	HNO3	Molybdenum (200.7) / Selenium (200.9) / Vanadium (200.7)**** = Dissolved (Field Filtered)	

Comments: ***SHORT HOLD TIMES**** * SLOW TO RECHARGE ≥ 20 MIN. TO 80%.
DWN HOLE DO = 6.6 mg/l (YSI550A)

Signature: [signature]

Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-5**

Well [X] Piezometer [ ]

Field Tech(s): JDR

Weather Conditions: CLOD + CLR

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 23.39 ft from TOC
Depth to Water: 7.24 ft from TOC
Water Column: 16.15 ft.
Water Column Volume: 2.56 gal (WC X VF)

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 12.92 - 10.47

Depth to water after recovery: 7.30 Time: 1616

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1558	0 0.5	1.18	6	16.5	37.0	5.31	188	GRAY		
1602	1 3.5	2.12	12	16.9	29.7	5.45	170	CLR		
1606	2 6.5	2.08	20	17.0	23.3	5.30	137			
1611	3 9.5	2.01	22	16.9	22.1	5.36	109	CLR		
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1622
	1	1-L Amber	Ice	TRPH (1664)	
	1	250-mL Amber	Ice	TPHd (8015M)	
	1	500-mL Poly	HNO3	Total Lead (6010)	

Comments: * EMULSIFIED BROWN FOAM ON PROBE
* DUP taken DO = 5.2 mg/L (451 5300)

Signature: [signature] Date: 2/20/06

ENSR | AECOM

GROUNDWATER SAMPLING DATA SHEET
Site Address: 122 Leslie St., Ukiah, CA
ENSR No. 06940-264-100
Unocal No. 813

Well/Piezo ID: **MW-1**

Well [X] Piezometer [ ]

Field Tech(s): JDR

Weather Conditions: Cool + CLR

Well Purging:
Date Purged: 2/20/06
Purge Method: Disposable bailer/other DC PUMP

Casing Material: PVC
Well Diameter: 2.00 in.
Total Depth: 24.11 ft from TOC
Depth to Water: 7.24 ft from TOC
Water Column: 16.87 ft.
Water Column Volume: 2.70 gal (WC X VF)

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column 13.5 X .8) = 10.61

Depth to water after recovery: 7.37 Time:

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (uS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
1638	0 0.5	3.27	70	17.3	32.9	5.35	680	CLR	STR. ODOR	
1642	1 3.5	1.84	19	17.9	33.7	5.42	384	CLR	STR ODOR	
1647	2 6.5	0.75	8	18.1	34.0	5.36	150	CLR	STR ODOR	
1652	3 9.5	0.08	9	18.2	31.1	5.34	117	CLR	STR ODOR	
	4									

Sample Collection:
Date Sampled: 2/20/06
Sampling Method: Disposable Bailer / Other DC PUMP/BAIL
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-1	3	40-mL VOA	Ice/HCl	TPHg / BTEX (8260)	1724
MW-1	1	1-L Amber	None	TRPH (1664)	
MW-1	1	250-mL Amber	None	TPHd (8015M)	
MW-1	1	500-mL Poly	HNO3	Total Lead (6010)	
MW-1	1	500-mL Poly	ICE	Bromate / Bromide (300.0) Chromium VI (7199) / pH (150.1)***	
MW-1	1	500-mL Poly	HNO3	Molybdenum (200.7) / Selenium (200.9) / Vanadium (200.7)**** = Dissolved (Field Filtered)	
DUP	3	40-mL glass vial	Ice/HCl	TPHg / BTEX (8260)	

Comments: ***DUPLICATE Samples TPHg/ BTEX ONLY*** ***SHORT HOLD TIME*** *** STRONG ODOR
* PUMP Have DO = 0.88 mg/L (YSI 550A)

Signature: Date: 2/20/06

ENSR | AECOM

CHAIN OF CUSTODY

Lab: CLS

TAT: Standard

Report results to:

Name	Paul Wadding
Company	ENSR
Mailing Address	10461 Old Placerville Road, Suite 170
City, State, Zip	Sacramento, CA 95827
Telephone No.	916-362-7100
Fax No.	916-362-8100
E-Mail	pwadding@ensr.com

Project Information

Site Address:	122 Leslie Street, Ukiah
ENSR No.	06940-264-100
Unocal No.	813
Global ID No.	T0604593441

ENSR COPY

Special instructions and/or specific regulatory requirements:

Detection limit for Vanadium by 200.7 must be <10 ug/L
Detection limit for Selenium by(200.9) must be <5 ug/L
Detection limit for Molybdenum by(200.9) must be <20 ug/L
Detection limit for Bromate (300.0)must be <5 ug/L
Detection limit for Bromide (300.0)must be <15 ug/L

Sample Identification	Date Sampled	Time Sampled	Matrix/ Media	No. of Conts.	Analyses Requested: TPHg (8015)	BTEX (8021B)	TRPH (1664)	Total Lead (6010)	TPHd (8015)	Bromate (300) / Bromide (300.0)	Chromium VI (7199)	Molybdenum / Vanadium (200.7)	Selenium (200.9)	pH (150.1)		Sample Condition/Comments	Preservative
MW-1	2/20/06	1724	GW	8	X	X	X	X	X	X	X	X	X	X			HCl/HNO3
MW-2	2/20/06	1530	GW	8	X	X	X	X	X	X	X	X	X	X			HCl/HNO3
MW-3	2/20/06	1435	GW	6	X	X	X	X	X								HCl/HNO3
MW-4	2/20/06	1358	GW	6	X	X	X	X	X								HCl/HNO3
MW-5	2/20/06	1622	GW	6	X	X	X	X	X								HCl/HNO3
MW-6	2/20/06	1125	GW	6	X	X	X	X	X								HCl/HNO3
MW-7	2/20/06	1320	GW	6	X	X	X	X	X								HCl/HNO3
MW-8	2/20/06	1215	GW	6	X	X	X	X	X								HCl/HNO3
MW-9	2/20/06	1050	GW	6	X	X	X	X	X								HCl/HNO3
DUP	2/20/06	*	GW	2	X	X											HCl/ICE
QA	2/20/06	*	Liquid	2	X	X											Ice

Collected by: JDR **Date/Time** 2/20/06, 1900 **Collector's Signature:** [signature] **Date/Time** 2/20/06 1900

Relinquished by: JDR **Date/Time** 2/21/06 0845 **Received by:** M. Smith **Date/Time** 2/21/06 0845

Relinquished by: _____ **Date/Time** _____ **Received by:** _____ **Date/Time** _____

Method of Shipment: _____ **Sample Condition on Rcpt:** _____

*

ATTACHMENT C

LABORATORY ANALYTICAL RESULTS WITH CHAIN-OF-CUSTODY DOCUMENTATION

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

February 28, 2006

CLS Work Order #: CPB0616
COC #:

Paul Wadding
ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project Name: Frmr. Unocal #0813, 122 Leslie St.
Ukiah, Ca.

Enclosed are the results of analyses for samples received by the laboratory on 02/21/06 12:20. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

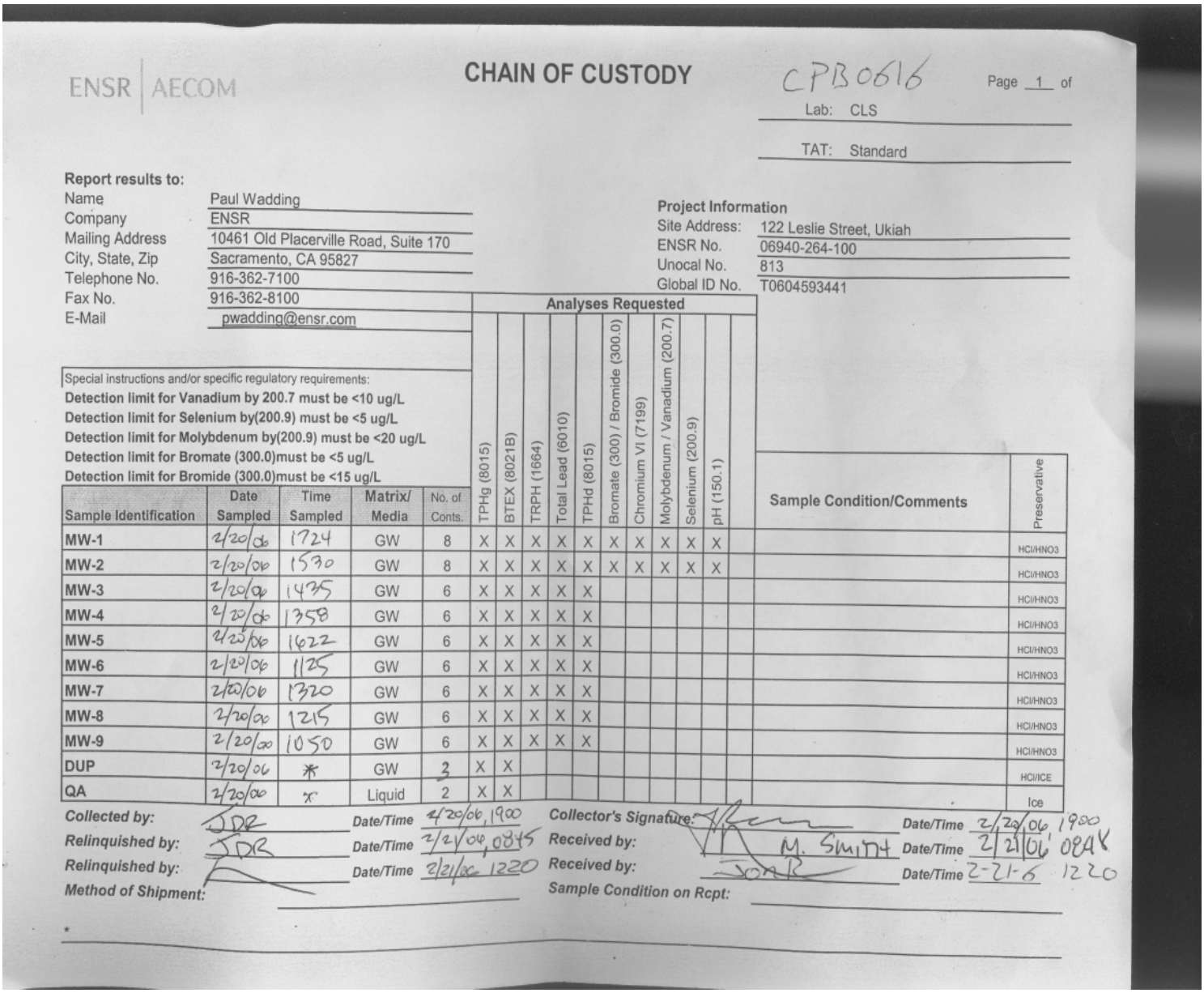
Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

ENSR - Sacramento	Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.	
10461 Old Placerville Rd., Suite 170	Project Number: 06940-264-100	**CLS Work Order #: CPB0616**
Sacramento, CA 95827-2508	Project Manager: Paul Wadding	COC #:



ENSR | AECOM

CHAIN OF CUSTODY

CPB0616

Page 1 of

Lab: CLS

TAT: Standard

Report results to:

Name: Paul Wadding
Company: ENSR
Mailing Address: 10461 Old Placerville Road, Suite 170
City, State, Zip: Sacramento, CA 95827
Telephone No.: 916-362-7100
Fax No.: 916-362-8100
E-Mail: pwadding@ensr.com

Project Information

Site Address: 122 Leslie Street, Ukiah
ENSR No. 06940-264-100
Unocal No. 813
Global ID No. T0604593441

Special instructions and/or specific regulatory requirements:
Detection limit for Vanadium by 200.7 must be <10 ug/L
Detection limit for Selenium by(200.9) must be <5 ug/L
Detection limit for Molybdenum by(200.9) must be <20 ug/L
Detection limit for Bromate (300.0)must be <5 ug/L
Detection limit for Bromide (300.0)must be <15 ug/L

Sample Identification	Date Sampled	Time Sampled	Matrix/ Media	No. of Conts.	TPHg (8015)	BTEX (8021B)	TRPH (1664)	Total Lead (6010)	TPHd (8015)	Bromate (300) / Bromide (300.0)	Chromium VI (7199)	Molybdenum / Vanadium (200.7)	Selenium (200.9)	pH (150.1)	Sample Condition/Comments	Preservative
MW-1	2/20/06	1724	GW	8	X	X	X	X	X	X	X	X	X	X		HCl/HNO3
MW-2	2/20/06	1530	GW	8	X	X	X	X	X	X	X	X	X	X		HCl/HNO3
MW-3	2/20/06	1435	GW	6	X	X	X	X	X							HCl/HNO3
MW-4	2/20/06	1358	GW	6	X	X	X	X	X							HCl/HNO3
MW-5	2/20/06	1622	GW	6	X	X	X	X	X							HCl/HNO3
MW-6	2/20/06	1125	GW	6	X	X	X	X	X							HCl/HNO3
MW-7	2/20/06	1320	GW	6	X	X	X	X	X							HCl/HNO3
MW-8	2/20/06	1215	GW	6	X	X	X	X	X							HCl/HNO3
MW-9	2/20/06	1050	GW	6	X	X	X	X	X							HCl/HNO3
DUP	2/20/06	*	GW	3	X	X										HCl/ICE
QA	2/20/06	*	Liquid	2	X	X										Ice

Analyses Requested

Collected by: JDR *Date/Time* 2/20/06, 1900 *Collector's Signature:*

Relinquished by: JDR *Date/Time* 2/21/06, 0845 *Received by:* M. SMITH *Date/Time* 2/21/06 0845

Relinquished by: *Date/Time* 2/21/06 1220 *Received by:* JOAR *Date/Time* 2-21-6 1220

Method of Shipment: *Sample Condition on Rcpt:*

*

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CPB0616-01) Water Sampled: 02/20/06 17:24 Received: 02/21/06 12:20									
Bromate	ND	0.020	mg/L	1	CP01308	02/22/06	02/22/06	EPA 300.0	
Bromide	ND	0.10	"	"	CP01332	02/23/06	02/23/06	"	
Hexavalent Chromium	ND	1.0	µg/L	"	CP01260	02/21/06	02/21/06	EPA 7199	
Silica Gel Treated HEM (SGT-HEM)	**12**	5.0	mg/L	"	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
pH	**6.41**		pH Units	"	CP01289	02/21/06	02/21/06	EPA 150.1	
MW-2 (CPB0616-02) Water Sampled: 02/20/06 15:30 Received: 02/21/06 12:20									
Bromate	ND	0.020	mg/L	1	CP01308	02/22/06	02/22/06	EPA 300.0	
Bromide	ND	0.10	"	"	CP01332	02/23/06	02/23/06	"	
Hexavalent Chromium	ND	1.0	µg/L	"	CP01260	02/21/06	02/21/06	EPA 7199	
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	"	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
pH	**6.64**		pH Units	"	CP01289	02/21/06	02/21/06	EPA 150.1	
MW-3 (CPB0616-03) Water Sampled: 02/20/06 14:35 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
MW-4 (CPB0616-04) Water Sampled: 02/20/06 13:58 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
MW-5 (CPB0616-05) Water Sampled: 02/20/06 16:22 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
MW-6 (CPB0616-06) Water Sampled: 02/20/06 11:25 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (CPB0616-07) Water Sampled: 02/20/06 13:20 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
MW-8 (CPB0616-08) Water Sampled: 02/20/06 12:15 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	
MW-9 (CPB0616-09) Water Sampled: 02/20/06 10:50 Received: 02/21/06 12:20									
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L	1	CP01368	02/23/06	02/24/06	EPA 1664 w/SGT	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CPB0616-01) Water	**Sampled: 02/20/06 17:24**	**Received: 02/21/06 12:20**							
Diesel	**13**	0.25	mg/L	5	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-2 (CPB0616-02) Water	**Sampled: 02/20/06 15:30**	**Received: 02/21/06 12:20**							
Diesel	**0.55**	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-3 (CPB0616-03) Water	**Sampled: 02/20/06 14:35**	**Received: 02/21/06 12:20**							
Diesel	**0.39**	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-4 (CPB0616-04) Water	**Sampled: 02/20/06 13:58**	**Received: 02/21/06 12:20**							
Diesel	ND	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-5 (CPB0616-05) Water	**Sampled: 02/20/06 16:22**	**Received: 02/21/06 12:20**							
Diesel	ND	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-6 (CPB0616-06) Water	**Sampled: 02/20/06 11:25**	**Received: 02/21/06 12:20**							
Diesel	ND	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-7 (CPB0616-07) Water	**Sampled: 02/20/06 13:20**	**Received: 02/21/06 12:20**							
Diesel	ND	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-8 (CPB0616-08) Water	**Sampled: 02/20/06 12:15**	**Received: 02/21/06 12:20**							
Diesel	ND	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	
MW-9 (CPB0616-09) Water	**Sampled: 02/20/06 10:50**	**Received: 02/21/06 12:20**							
Diesel	ND	0.050	mg/L	1	CP01296	02/21/06	02/22/06	EPA 8015M	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Gas/BTEX by GC PID/FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CPB0616-01) Water Sampled: 02/20/06 17:24 Received: 02/21/06 12:20									
Gasoline	**1400**	50	µg/L	1	CP01462	02/24/06	02/24/06	8015M/8021B	GAS-1
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	**4.4**	0.50	"	"	"	"	"	"	
Ethylbenzene	**7.6**	0.50	"	"	"	"	"	"	
Xylenes (total)	**5.6**	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*386 %*	*65-135*		"	"	"	"	*QS-4*
MW-2 (CPB0616-02) Water Sampled: 02/20/06 15:30 Received: 02/21/06 12:20									
Gasoline	**77**	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**2.0**	0.50	"	"	"	"	"	"	
Xylenes (total)	**1.0**	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*96.5 %*	*65-135*		"	"	"	"	
MW-3 (CPB0616-03) Water Sampled: 02/20/06 14:35 Received: 02/21/06 12:20									
Gasoline	**53**	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*98.0 %*	*65-135*		"	"	"	"	
MW-4 (CPB0616-04) Water Sampled: 02/20/06 13:58 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.0 %*	*65-135*		"	"	"	"	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Gas/BTEX by GC PID/FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (CPB0616-05) Water Sampled: 02/20/06 16:22 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*91.0 %*		*65-135*	"	"	"	"	
MW-6 (CPB0616-06) Water Sampled: 02/20/06 11:25 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.0 %*		*65-135*	"	"	"	"	
MW-7 (CPB0616-07) Water Sampled: 02/20/06 13:20 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.0 %*		*65-135*	"	"	"	"	
MW-8 (CPB0616-08) Water Sampled: 02/20/06 12:15 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*90.5 %*		*65-135*	"	"	"	"	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Gas/BTEX by GC PID/FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (CPB0616-09) Water Sampled: 02/20/06 10:50 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.5 %*		*65-135*	"	"	"	"	
DUP (CPB0616-10) Water Sampled: 02/20/06 00:00 Received: 02/21/06 12:20									
Gasoline	**1500**	50	µg/L	1	CP01462	02/24/06	02/24/06	8015M/8021B	GAS-1
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**7.9**	0.50	"	"	"	"	"	"	
Xylenes (total)	**5.6**	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*487 %*		*65-135*	"	"	"	"	*QS-4*
QA (CPB0616-11) Water Sampled: 02/20/06 00:00 Received: 02/21/06 12:20									
Gasoline	ND	50	µg/L	1	CP01395	02/23/06	02/23/06	8015M/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.0 %*		*65-135*	"	"	"	"	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CPB0616-01) Water Sampled: 02/20/06 17:24 Received: 02/21/06 12:20									
Molybdenum	ND	20	µg/L	1	CP01338	02/23/06	02/23/06	EPA 200.7	
Vanadium	ND	20	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	CP01337	02/23/06	02/23/06	EPA 200.8	
MW-2 (CPB0616-02) Water Sampled: 02/20/06 15:30 Received: 02/21/06 12:20									
Molybdenum	ND	20	µg/L	1	CP01338	02/23/06	02/23/06	EPA 200.7	
Vanadium	ND	20	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	CP01337	02/23/06	02/23/06	EPA 200.8	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (CPB0616-01) Water	**Sampled: 02/20/06 17:24**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-2 (CPB0616-02) Water	**Sampled: 02/20/06 15:30**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-3 (CPB0616-03) Water	**Sampled: 02/20/06 14:35**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-4 (CPB0616-04) Water	**Sampled: 02/20/06 13:58**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-5 (CPB0616-05) Water	**Sampled: 02/20/06 16:22**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-6 (CPB0616-06) Water	**Sampled: 02/20/06 11:25**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-7 (CPB0616-07) Water	**Sampled: 02/20/06 13:20**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-8 (CPB0616-08) Water	**Sampled: 02/20/06 12:15**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	
MW-9 (CPB0616-09) Water	**Sampled: 02/20/06 10:50**	**Received: 02/21/06 12:20**							
Lead	ND	50	µg/L	1	CP01338	02/23/06	02/23/06	EPA 6010B	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01260 - General Prep										
Blank (CP01260-BLK1)				Prepared & Analyzed: 02/21/06						
Hexavalent Chromium	ND	1.0	µg/L							
LCS (CP01260-BS1)				Prepared & Analyzed: 02/21/06						
Hexavalent Chromium	5.67	1.0	µg/L	5.00		113	80-120			
LCS Dup (CP01260-BSD1)				Prepared & Analyzed: 02/21/06						
Hexavalent Chromium	5.03	1.0	µg/L	5.00		101	80-120	12.0	20	
Matrix Spike (CP01260-MS1)		**Source: CPB0595-01**		Prepared & Analyzed: 02/21/06						
Hexavalent Chromium	4.87	1.0	µg/L	5.00	ND	97.4	75-125			
Matrix Spike Dup (CP01260-MSD1)		**Source: CPB0595-01**		Prepared & Analyzed: 02/21/06						
Hexavalent Chromium	5.62	1.0	µg/L	5.00	ND	112	75-125	14.3	25	
Batch CP01308 - General Prep										
Blank (CP01308-BLK1)				Prepared & Analyzed: 02/22/06						
Bromate	ND	0.020	mg/L							
LCS (CP01308-BS1)				Prepared & Analyzed: 02/22/06						
Bromate	0.504	0.020	mg/L	0.500		101	80-120			
LCS Dup (CP01308-BSD1)				Prepared & Analyzed: 02/22/06						
Bromate	0.498	0.020	mg/L	0.500		99.6	80-120	1.20	20	
Matrix Spike (CP01308-MS1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/22/06						
Bromate	0.354	0.020	mg/L	0.500	ND	70.8	75-125			QM-5

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01308 - General Prep										
Matrix Spike Dup (CP01308-MSD1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/22/06						
Bromate	0.368	0.020	mg/L	0.500	ND	73.6	75-125	3.88	25	QM-5
Batch CP01332 - General Prep										
Blank (CP01332-BLK1)				Prepared & Analyzed: 02/23/06						
Bromide	ND	0.10	mg/L							
LCS (CP01332-BS1)				Prepared & Analyzed: 02/23/06						
Bromide	2.09	0.10	mg/L	2.00		104	80-120			
LCS Dup (CP01332-BSD1)				Prepared & Analyzed: 02/23/06						
Bromide	2.10	0.10	mg/L	2.00		105	80-120	0.477	20	
Matrix Spike (CP01332-MS1)		**Source: CPB0659-01**		Prepared & Analyzed: 02/23/06						
Bromide	2.13	0.10	mg/L	2.00	ND	106	75-125			
Matrix Spike Dup (CP01332-MSD1)		**Source: CPB0659-01**		Prepared & Analyzed: 02/23/06						
Bromide	2.09	0.10	mg/L	2.00	ND	104	75-125	1.90	25	
Batch CP01368 - Solvent Extract										
Blank (CP01368-BLK1)				Prepared: 02/23/06 Analyzed: 02/24/06						
Silica Gel Treated HEM (SGT-HEM)	ND	5.0	mg/L							
LCS (CP01368-BS1)				Prepared: 02/23/06 Analyzed: 02/24/06						
Silica Gel Treated HEM (SGT-HEM)	41.3	5.0	mg/L	40.0		103	80-120			

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01368 - Solvent Extract										
LCS Dup (CP01368-BSD1)				Prepared: 02/23/06 Analyzed: 02/24/06						
Silica Gel Treated HEM (SGT-HEM)	42.1	5.0	mg/L	40.0		105	80-120	1.92	20	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01296 - EPA 3510B GCNV										
Blank (CP01296-BLK1)				Prepared: 02/21/06 Analyzed: 02/22/06						
Diesel	ND	0.050	mg/L							
Motor Oil	ND	0.050	"							
JP-5/JP-8	ND	0.050	"							
LCS (CP01296-BS1)				Prepared: 02/21/06 Analyzed: 02/22/06						
Diesel	2.79	0.050	mg/L	2.50		112	65-135			
LCS Dup (CP01296-BSD1)				Prepared: 02/21/06 Analyzed: 02/22/06						
Diesel	2.74	0.050	mg/L	2.50		110	65-135	1.81	30	
Matrix Spike (CP01296-MS1)		**Source: CPB0566-01**		Prepared: 02/21/06 Analyzed: 02/22/06						
Diesel	2.43	0.050	mg/L	2.50	ND	97.2	46-137			
Matrix Spike Dup (CP01296-MSD1)		**Source: CPB0566-01**		Prepared: 02/21/06 Analyzed: 02/22/06						
Diesel	2.46	0.050	mg/L	2.50	ND	98.4	46-137	1.23	30	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Gas/BTEX by GC PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01395 - EPA 5030 Water GC										
Blank (CP01395-BLK1)				Prepared & Analyzed: 02/23/06						
Gasoline	ND	50	µg/L							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	1.0	"							
Surrogate: o-Chlorotoluene (BTEX)	*21.0*		"	*20.0*		*105*	*65-135*			
Surrogate: o-Chlorotoluene (Gas)	*18.2*		"	*20.0*		*91.0*	*65-135*			
LCS (CP01395-BS1)				Prepared & Analyzed: 02/23/06						
Gasoline	415	50	µg/L	500		83.0	65-135			
Surrogate: o-Chlorotoluene (Gas)	*19.0*		"	*20.0*		*95.0*	*65-135*			
LCS Dup (CP01395-BSD1)				Prepared & Analyzed: 02/23/06						
Gasoline	351	50	µg/L	500		70.2	65-135	16.7	30	
Surrogate: o-Chlorotoluene (Gas)	*17.0*		"	*20.0*		*85.0*	*65-135*			
Matrix Spike (CP01395-MS1)		**Source: CPB0616-08**		Prepared & Analyzed: 02/23/06						
Gasoline	78.2	50	µg/L	500	ND	15.6	65-135			QM-7
Surrogate: o-Chlorotoluene (Gas)	*3.54*		"	*20.0*		*17.7*	*65-135*			*QM-7*
Matrix Spike Dup (CP01395-MSD1)		**Source: CPB0616-08**		Prepared & Analyzed: 02/23/06						
Gasoline	350	50	µg/L	500	ND	70.0	65-135	127	30	QM-7
Surrogate: o-Chlorotoluene (Gas)	*18.3*		"	*20.0*		*91.5*	*65-135*			*QM-7*
Batch CP01462 - EPA 5030 Water GC										
Blank (CP01462-BLK1)				Prepared & Analyzed: 02/24/06						
Gasoline	ND	50	µg/L							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	1.0	"							

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Gas/BTEX by GC PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01462 - EPA 5030 Water GC										
Blank (CP01462-BLK1)				Prepared & Analyzed: 02/24/06						
Surrogate: o-Chlorotoluene (BTEX)	*21.6*		*µg/L*	*20.0*		*108*	*65-135*			
Surrogate: o-Chlorotoluene (Gas)	*17.8*		*"*	*20.0*		*89.0*	*65-135*			
LCS (CP01462-BS1)				Prepared & Analyzed: 02/24/06						
Gasoline	355	50	µg/L	500		71.0	65-135			
Surrogate: o-Chlorotoluene (Gas)	*19.6*		*"*	*20.0*		*98.0*	*65-135*			
LCS Dup (CP01462-BSD1)				Prepared & Analyzed: 02/24/06						
Gasoline	407	50	µg/L	500		81.4	65-135	13.6	30	
Surrogate: o-Chlorotoluene (Gas)	*19.4*		*"*	*20.0*		*97.0*	*65-135*			
Matrix Spike (CP01462-MS1)		**Source: CPB0715-05**		Prepared & Analyzed: 02/24/06						**QM-5**
Gasoline	1270	50	µg/L	500	2000	NR	65-135			
Surrogate: o-Chlorotoluene (Gas)	*14.6*		*"*	*20.0*		*73.0*	*65-135*			
Matrix Spike Dup (CP01462-MSD1)		**Source: CPB0715-05**		Prepared & Analyzed: 02/24/06						**QM-5**
Gasoline	2200	50	µg/L	500	2000	40.0	65-135	53.6	30	
Surrogate: o-Chlorotoluene (Gas)	*21.2*		*"*	*20.0*		*106*	*65-135*			

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01337 - EPA 3020A										
Blank (CP01337-BLK1)				Prepared & Analyzed: 02/23/06						
Selenium	ND	5.0	µg/L							
LCS (CP01337-BS1)				Prepared & Analyzed: 02/23/06						
Selenium	80.2	5.0	µg/L	100		80.2	80-120			
LCS Dup (CP01337-BSD1)				Prepared & Analyzed: 02/23/06						
Selenium	79.2	5.0	µg/L	100		79.2	80-120	1.25	20	QM-1
Matrix Spike (CP01337-MS1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/23/06						
Selenium	79.1	5.0	µg/L	100	ND	79.1	75-125			
Matrix Spike Dup (CP01337-MSD1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/23/06						
Selenium	82.8	5.0	µg/L	100	ND	82.8	75-125	4.57	25	
Batch CP01338 - EPA 3010A										
Blank (CP01338-BLK1)				Prepared & Analyzed: 02/23/06						
Molybdenum	ND	20	µg/L							
Vanadium	ND	20	"							
LCS (CP01338-BS1)				Prepared & Analyzed: 02/23/06						
Molybdenum	528	20	µg/L	500		106	80-120			
Vanadium	525	20	"	500		105	80-120			
LCS Dup (CP01338-BSD1)				Prepared & Analyzed: 02/23/06						
Molybdenum	524	20	µg/L	500		105	80-120	0.760	20	
Vanadium	514	20	"	500		103	80-120	2.12	20	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01338 - EPA 3010A										
Matrix Spike (CP01338-MS1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/23/06						
Molybdenum	522	20	µg/L	500	ND	104	75-125			
Vanadium	517	20	"	500	ND	103	75-125			
Matrix Spike Dup (CP01338-MSD1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/23/06						
Molybdenum	538	20	µg/L	500	ND	108	75-125	3.02	25	
Vanadium	527	20	"	500	ND	105	75-125	1.92	25	

ENSR - Sacramento
10461 Old Placerville Rd., Suite 170
Sacramento, CA 95827-2508

Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.
Project Number: 06940-264-100
Project Manager: Paul Wadding

CLS Work Order #: CPB0616
COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP01338 - EPA 3010A										
Blank (CP01338-BLK1)				Prepared & Analyzed: 02/23/06						
Lead	ND	50	µg/L							
LCS (CP01338-BS1)				Prepared & Analyzed: 02/23/06						
Lead	546	50	µg/L	500		109	80-120			
LCS Dup (CP01338-BSD1)				Prepared & Analyzed: 02/23/06						
Lead	519	50	µg/L	500		104	80-120	5.07	20	
Matrix Spike (CP01338-MS1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/23/06						
Lead	512	50	µg/L	500	ND	102	75-125			
Matrix Spike Dup (CP01338-MSD1)		**Source: CPB0616-01**		Prepared & Analyzed: 02/23/06						
Lead	519	50	µg/L	500	ND	104	75-125	1.36	25	

ENSR - Sacramento	Project: Frmr. Unocal #0813, 122 Leslie St. Ukiah, Ca.	
10461 Old Placerville Rd., Suite 170	Project Number: 06940-264-100	**CLS Work Order #: CPB0616**
Sacramento, CA 95827-2508	Project Manager: Paul Wadding	COC #:

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-1	The spike recovery was outside acceptance limits for the LCS or LCSD. The batch was accepted based on acceptable MS/MSD recoveries & RPD's.
GAS-1	Although sample contains compounds in the retention time range associated with gasoline, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on gasoline.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference